
GENDER DIFFERENCES IN ORGANIZATIONAL LEADERSHIP

A Large Sample Study

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In order to investigate possible gender differences in organizational leadership behavior, a diverse sample of North American male and female managers ($n=1,800$) matched for organization, management level, job function, and management experience were compared on 22 leadership behaviors and 3 effectiveness measures. Outcome measures were assessed using a 360-degree strategy in which each manager was evaluated by self, boss, peers, and direct reports. This strategy resulted in the completion of 17,491 assessment questionnaires. Numerous gender differences were described by both self and observer groups. Women tended to score higher on leadership scales measuring an orientation toward production and the attainment of results. Men tended to score higher on scales assessing an orientation towards strategic planning and organizational vision. In addition, women tended to be rated higher on people-oriented leadership skills, while men tended to be rated higher on business-oriented leadership skills. In terms of general leadership effectiveness, bosses saw men and women as equally effective. Peers and direct reports rated women slightly higher than men. Comparisons with previous research and implications for individual and organizational development are discussed.

In recent years, there has been extensive interest in the study of gender and leadership behavior. In a meta-analytic review of 171 studies of gender differences in leadership style, Eagly & Johnson (1990) found evidence that women tended to adopt a more democratic or participative style and that men tended to adopt a more autocratic or directive leadership style. In addition, women tended to be more concerned with both the maintenance of interpersonal relationships and task accomplishment than men. When attention was limited to studies conducted in actual organizational settings, gender differences in democratic/autocratic styles remained. However, gender differences in the interpersonal and task styles were no longer evidenced. In a similar fashion, Eagly, Karau, & Makhijani (1995) reviewed 86 studies of gender and leadership effectiveness. Aggregated over laboratory and organizational studies, men and women did not differ in organizational effectiveness. However, men were more effective in roles that were defined as masculine and women were more effective in roles that were defined as primarily less masculine. In addition, men were rated as more effective to the degree that leader and subordinate roles were male dominated numerically.

Since that review, interest in gender differences in both leadership behavior and effectiveness has remained high (e.g., Bowes-Sperry, Veiga, & Yanouzas, 1997; Brewer, Socha, & Potter, 1996; Berdahl, 1996; Cassell & Walsh, 1997; Dodge, Gilroy, & Fenzel, 1995; Eagly, Karau & Makhijani, 1995; Forsyth, Heiney, & Wright, 1997; Hooijberg & DiTomaso, 1996; Kolb, 1997; Lauterbach & Weiner, 1996; Luthar, 1996; Maher, 1997; Payne & Cangemi, 1997; Moss & Kent, 1996; Pratch, 1996; Rosenthal, Guest, & Peccei, 1996; Sakata, 1996).

Despite the large number of gender and leadership studies, most have suffered from methodological limitations that seriously impair their usefulness or generalizability. These have included the use of small sample sizes, narrow definitions of leadership, reliance on self report data or naïve observers, use of subjects who are not in current leadership roles (e.g., laboratory and analog studies), and uncontrolled differences between groups (including job function, position within the organization, job experience, and organizational culture). In addition, many organizational studies focus on academic rather than business organizations. Finally, in those few studies that include observer data, ratings from peers within the organization are almost never included.

The current study was designed to examine gender differences in leadership behavior and effectiveness while attempting to ameliorate many of the limitations described above. Specifically, a large, diverse sample of male and female managers, matched for organization, management level, job function,

and management experience, were compared on 22 leadership variables and 3 effectiveness measures. Outcome variables were assessed using a 360-degree strategy (Church, 1995; Tornow, 1993), in which managers were evaluated by self, boss, peers, and direct reports (subordinates). Gender differences in both self and observer ratings were then examined.

Method

Subjects

Subjects consisted of 900 female and 900 male managers completing 360-degree evaluations as part of leadership development programs in 143 North American companies. Subjects were selected from 46 US states, 6 Canadian provinces, and a wide range of industries. The mean age for subjects was 40.7 years ($sd=8.0$), 86% were Caucasian, and 75% had attended 4 or more years of college. Demographic characteristics of the 1800 managers are provided in *Tables 1, 2 and 3*.

A total of 2,171 boss evaluations, 6,759 peer evaluations, and 6,761 direct report evaluations were obtained on the 1,800 managers. This provided a median of 1 boss, 4 peer, and 4 direct report evaluations for each manager. The percentage of male observers was 71%, 56%, and 42% for bosses, peers, and direct reports respectively. The mean years of acquaintance was 4.9 for bosses, 4.9 for peers, and 4.0 for direct reports. Observer demographic characteristics are provided in *Table 4*.

Instruments

Leadership Behaviors

Each manager completed the self version of the *Leadership Effectiveness Analysis* (LEA; Management Research Group, 1992), while bosses, peers, and direct reports completed the observer version. The LEA is a descriptive, behaviorally oriented instrument, providing scores on 22 dimensions of leadership behavior. The instrument has demonstrated high reliabilities, low inter-scale correlations, and excellent construct and criterion-rated validity in extensive large sample studies (Kabacoff, 1998). Brief descriptions of the 22 leadership dimensions assessed by the LEA are provided in *Appendix A*.

Leadership Effectiveness

The observer version of the LEA also contains 20 graphically anchored rating scales assessing various aspects of leadership effectiveness. Based on both factor analytic studies and rational considerations, these rating scales have been combined to yield 3 broader effectiveness measures: Business Skills, People Skills, and General Effectiveness. The resulting measures have demonstrated high reliabilities and good content and factorial validity (Kabacoff, 1998). Brief descriptions of these scales and their content are provided in *Appendix B*.

Design and Procedure

Data were obtained by sampling from an extensive archive of 360-degree leadership evaluations maintained by an international human resource development firm. Evaluations were completed in the course of ongoing organizational development projects. A subject pair was selected if a match between a male and female manager on organization, management level, job function, and management experience could be found, and if complete 360-degree evaluations were available for both members of the pair. Thus a female accounting division head, with 5-10 years of experience, working at ABC Toys would be included in the study if a male accounting division head, with the same years of experience, working within the same company could be found. This process yielded 900 such male-female pairs and a total of 17,491 completed questionnaires (1,800 self and 15,691 observer evaluations). Peers and direct reports completed evaluations anonymously. Raw scale scores were used in all analyses.

Results

Leadership Practices

Gender differences in LEA self ratings were examined via a randomized block MANOVA with the 22 leadership variables employed as dependent variables, gender as the independent variable, and subject pair as the blocking variable. A significant MANOVA was followed by separate randomized block ANOVAs for each dependent variable. The process was repeated for boss, peer, and direct report data. For observer data, mean ratings for each scale were employed as the dependent variables with boss, peer, and direct report data analyzed separately. The MANOVA/ANOVA strategy was adopted to reduce the alpha inflation expected from multiple significance tests (Stevens, 1976). In addition, an effect size (standardized mean difference) for each gender comparison is provided. Effect sizes are important in judging the practical significance of results (Hedges & Olkin, 1985).

Self Ratings

The MANOVA for self ratings was significant (Wilk's $\Lambda=0.79$, $F(22,878)=10.65$, $p < 0.0001$). Gender differences were obtained on 13 leadership variables and effect sizes for significant differences ranged from 0.10 to 0.37. Details for self ratings are provided in *Table 5*.

Boss Ratings

The MANOVA for boss ratings was significant (Wilk's $\Lambda=0.73$, $F(22,878)=14.81$, $p < 0.0001$) and ANOVAs were significant for 15 leadership practices. Effect sizes for significant gender differences ranged from 0.10 to 0.38. Results for boss ratings are provided in *Table 6*.

Peer Ratings

An analysis of peer ratings produced a significant MANOVA (Wilk's $\Lambda=0.64$, $F(22,878)=22.96$, $p < 0.0001$). Significant gender differences were found for 18 leadership practices. Effect sizes for significant gender differences ranged from 0.10 to 0.39. Results for peer ratings are provided in *Table 7*.

Direct Report Ratings

Finally, the MANOVA for direct report ratings was significant (Wilk's $\Lambda=0.70$, $F(22,878)=17.31$, $p < 0.0001$). Significant gender differences were obtained for 16 leadership practices. Effect sizes for significant gender differences ranged from 0.11 to 0.38. Results for direct report ratings are provided in *Table 8*.

Summary

An examination of *Table 5* through *Table 8* reveals a high degree of consistency across self, boss, peer and direct report ratings. Female managers obtained significantly higher mean scores than male managers on the Excitement, Communication, Feedback, Dominant, and Production leadership scales of the LEA. These findings were replicated across all four rater groups. Conversely, male managers obtained significantly higher mean scores on the Conservative, Innovative, Strategic, and Restraint leadership scales. Again, these findings were replicated across all four rater groups. Male managers obtained significantly higher mean scores on the Delegation and Cooperation leadership scales, as measured by observers. However, no differences were found on these two scales by self report. Finally, gender differences were obtained on four additional LEA scales, with differences varying by rater group. The only two scales that did not yield significant gender differences were Consensual and Authority. Results for all four rater groups (self, boss, peers, direct reports) are summarized in *Table 9*.

Leadership Effectiveness

Gender differences in observer ratings of leadership effectiveness were examined via a randomized block MANOVA with the nine effectiveness measures (three for each observer group) as dependent variables, gender of the manager as the independent variable, and subject pair as the blocking variable. A significant MANOVA was followed by separate randomized block ANOVAs and measures of effect sizes for each dependent variable.

The MANOVA for effectiveness ratings was significant (Wilk's $\Lambda=0.86$, $F(9,483)=9.06$, $p < 0.0001$) and ANOVAs were significant for seven effectiveness measures. Effect sizes for significant gender differences ranged from 0.10 to 0.18. Bosses and peers rated men higher in Business Skills. No differences in Business Skills were reported by direct reports. All three observer groups rated women higher on People Skills. Finally, peers and direct reports rated women higher on General Effectiveness. No gender differences in General Effectiveness were reported by bosses. Details are provided in *Table 10*.

Discussion

The meta-analytic findings of Eagly and Johnson (1990) suggest that men demonstrate a more autocratic leadership style and women demonstrate a more democratic leadership style. We would expect from this that men would be higher on Self (emphasizing independent decision making), Dominant (a forceful, assertive, competitive approach to achieving results) and Management Focus (taking charge and seeking out opportunities to direct others). Conversely, we would expect women to be higher on Consensual (valuing and collecting others' input as part of the decision making process), and Cooperation (accommodating the needs of others and being willing to defer one's own objectives to assist others). The current investigation does not support this distinction. Females tended to be higher on Dominant and Management Focus, while men tended to be higher on Cooperation. No differences were found on Consensual, and only peers saw men as higher on Self.

There are several possible explanations for this discrepancy. Previous research has not tended to control for confounding variables. The autocratic vs. democratic distinction found may reflect differences in level (women tending to hold lower positions in the organizational hierarchy), function (women representing helping profession positions to a greater degree), and experience (women having less experience in management) than gender per se. The current study controls for these factors, producing more accurate gender comparisons. In addition, the meta-analytic findings cited are based on research completed before 1990. The role of women in management positions has changed somewhat in the intervening years.

Eagly and Johnson's (1990) meta-analyses also suggests that, at least in laboratory and assessment studies, women display a more interpersonally oriented style than men. An interpersonally oriented style would describe individuals who are helpful, friendly, available, explain procedures, and tend to the morale and welfare of others. The current investigation found partial support for generalizing these findings to individuals in leadership positions within organizational settings. Women tended to be rated higher on Empathy (demonstrating an active concern for people and their needs, forming close supportive relationships with others) and Communication (stating clear expectations for others, clearly expressing thoughts and ideas, maintaining a flow of communication) than men. In addition, all three observer groups rated women higher on People Skills (sensitivity to others, likableness, ability to listen, effective relationships with peers and direct reports). However, women were not seen as more Outgoing (acting in an extroverted, friendly, informal fashion) or more cooperative in their leadership styles.

Finally, the meta-analytic findings described above suggest that men demonstrate a more task oriented style (e.g., maintaining high standards for performance, making roles explicit, and having subordinates follow rules and procedures). Again these findings applied to laboratory and assessment studies, but not to organizational settings. In contrast to expectations, the current investigation found that women tended to be rated *higher* on leadership behaviors that had a task oriented nature. Specifically, women tended to be rated higher on Production (strong pursuit of achievement, holding high expectations for self and others), Dominant (pushing vigorously to achieve results through forceful, assertive, competitive action), Control (setting deadlines and monitoring progress), Communication (stating clear expectations), and Feedback (letting others know how they have performed). In addition, women were higher on Structuring

(adopting a systematic and organized approach with guidelines and procedures) according to self and peer reports.

While women tended to be rated higher on results oriented leadership behaviors, men tended to be rated higher on leadership behaviors concerned with vision creation. Men were rated higher on Strategic (long range planning and analysis, seeing the big picture), Innovative (comfort with change and willingness to take risks to consider new approaches), and Conservative (learning from the past to inform the future). Self, peers and direct reports also rated men higher on Persuasive (building commitment by winning others over to your point of view).

Given the correlational nature of the data, explanations of these findings are speculative at best. One possibility, raised by Peters (1998) is that female managers feel more vulnerable in their positions and consequently focus on achieving results to prove their worth. The higher scores on Dominant and lower scores on Cooperation may also reflect a strong need ensure that the job gets done. In contrast, men may feel more free to engage in the “luxury” of visioning and strategic thinking, which are riskier endeavors.

Finally, two of the largest differences found were that men tended to be higher on Restraint (control and limitation of emotional expression, understated interpersonal demeanor) and women tended to be higher on Excitement (energy, intensity, emotional expression). These differences in leadership practices are somewhat congruent with gender stereotypic expectations.

With regard to leadership effectiveness, all three observer groups rated women higher on People Skills. Bosses and peers rated men higher on Business Skills, while direct reports did not. The discrepancy may reflect a lack of opportunity for direct reports to observe such behaviors relative to the other observer groups. Findings on these two effectiveness measures also follow gender stereotypic expectations to some extent.

Bosses did not rate men and women differently in terms of General Effectiveness. Thus, although bosses reported gender differences in leadership styles and practices, they did not see one group as more generally effective (current effectiveness, future potential, credibility) than the other. Peers and direct reports tended to see women slightly higher than men. This may reflect the impact of People Skills for these two constituencies.

In discussing the gender differences found in this study, attention must be paid to the size of the effects as well as to their statistical significance. While differences tended to be consistent across observer groups, they also tended to be small to moderate in size. Thus, the gender differences might be characterized as subtle but real (to the degree that it is unlikely that they occurred by chance).

The current investigation has a number of strengths. The sample of individuals was large and diverse and represents actual role incumbents engaged in leadership activities in a wide array of organizational settings. Data was gathered representing a number of perspectives (self, bosses, peers, and direct reports) and includes a constituency (peers) that is rarely studied. The specificity of variables measured by the LEA allows us to investigate differences in greater depth. Finally, the study design, which controls for organization, management level, job function, and management experience, allows for more precise gender comparisons.

This investigation also has limitations. Data represents the perceptions of leadership practices, rather than structured behavioral observations. The gender of the rater was not explicitly addressed although, given the high degree of agreement between self and observer ratings, it is unlikely that the gender of the rater accounts for a significant amount of variance in the findings. Finally, the degree to which specific jobs were defined as more or less traditionally masculine in nature was not measured. Therefore, the degree to which women may be seen as more effective in roles that are traditionally defined as less masculine could not be addressed.

Implications

The gender differences described in this article suggest potential developmental opportunities for both individuals and organizations. Research (e.g., Kabacoff, 1998) has suggested that strategic thinking is one of the leadership behaviors most predictive of observer rated effectiveness. In addition, the ability to craft a strategic vision is often sought after in senior level management positions. Female managers may benefit from additional training in strategic analysis and planning coupled with an increased focus on the persuasive skills needed to sell ideas. There is significant evidence however, (e.g., Chaffins, Forbes, Fugua, & Cangemi, 1995; Marlow, Marlow, & Aline, 1996; Morrison, White, & Van Velsor, 1987) that organizational impediments exist for women in this area. These include limited access to information, limited

opportunities to receive mentoring, and limited access to senior female role models engaged in these activities. These impediments may lead to a greater focus on management and production oriented activities to achieve success. Reduction of these impediments should increase opportunities for women to further develop this important skill set.

The importance of interpersonal effectiveness for effective leadership has also received a great deal of attention and support. For example, there is significant interest in how interpersonal factors may affect teams and team building, coaching and mentoring, sensitivity to diversity, and executive derailment. Male managers may benefit from additional training in interpersonal, relational skills that focus on empathy, listening skills, sensitivity to interpersonal differences, and the ability to give effective and constructive feedback. As in the case of strategic skills, organizations need to support these desired behaviors through congruent organizational expectations and rewards.

Finally, it is important to emphasize that although consistent differences in the perceptions of leadership practices of male and female managers were evident in this study, at least from the boss's perspective, the genders were equal with respect to overall effectiveness. This lends credence to the frequently cited notion that there is more than one way to lead effectively.

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Table 1.
Variables Used to Match Male and Female Mangers

Demographic Variable[†]	Male		Female	
	n	%	n	%
Management Level				
President/CEO	3	0.3	3	0.3
Senior or Exec Vice President	22	2.4	22	2.4
Division Head/Vice President	93	10.3	93	10.3
Department /Unit Manager	659	73.2	659	73.2
Supervisor/Foreman	100	11.1	100	11.1
Professional/Technical	22	2.4	22	2.4
Functional Area				
Administrative/Clerical	1	0.1	1	0.1
Accounting/Finance	79	8.8	79	8.8
Administration/Operations	321	35.7	321	35.7
Customer Service	80	8.9	80	8.9
Data Processing/Systems	45	5.0	45	5.0
Distribution/Fulfillment	11	1.2	11	1.2
HR/Personnel	27	3.0	27	3.0
Manufacturing	18	2.0	18	2.0
Marketing/Sales	128	14.2	128	14.2
Technical/Engineering/Research	72	8.0	72	8.0
Other	119	13.2	119	13.2
Years of Managerial Experience				
< 5 Years	247	27.4	247	27.4
5 - 10 Years	364	40.4	364	40.4
11 - 15 Years	160	17.8	160	17.8
16+ Years	129	14.3	129	14.3
Organization	143 Organizations from 46 US States and 6 Canadian Provinces			

[†]N adds up to 900 and percentages add up to 100% for each gender for each variable.

Table 2.
Organizational Characteristics

Organizational Characteristics[†]	N	%
Industry		
Accounting/Banking/Finance	346	19.2
Insurance	294	16.3
Health Care/Medical	208	11.6
General Manufacturing	204	11.3
Communications/Telecom	118	6.6
Government	114	6.3
Pharmaceuticals/Medical Products	100	5.6
Social Services	98	5.4
Wholesale/Retail Trade	82	4.6
Computer/Office Equip	66	3.7
Utilities	50	2.8
Business/Info Systems	12	0.7
Consulting	10	0.6
Education	8	0.4
Food Products/Processing	8	0.4
Hospitality/Travel/Tourism	8	0.4
Printing/Publishing/Ad	8	0.4
Contracting/Construct	6	0.3
Mining/Oil/Gas/Chemicals	4	0.2
Real Estate/Land Development	4	0.2
Entertainment/Recreation/Sports	2	0.1
Research/Scientific Services	2	0.1
Transportation	2	0.1
Other	46	2.5
Number of Employees		
1 to 49	238	13.2
50 to 99	44	2.4
100 to 499	148	8.2
500 to 999	108	6.0
1000 to 4999	626	34.8
5000 or more	610	33.9
Missing	26	1.4

[†] N adds up to 1800 and percentages add up to 100% for each variable.

Table 3.
Demographic Characteristics of Managers

Demographic Variable [†]	Males		Females	
	n	%	n	%
Ethnicity				
African American	25	2.8	37	4.1
Am Indian or Alaskan Native	4	0.4	4	0.4
Asian or Pacific Islander	33	3.7	38	4.2
Hispanic	30	3.3	43	4.8
Caucasian	779	86.6	761	84.6
Missing	29	3.2	17	1.9
Age				
< 29 Years	37	4.1	36	4.0
30 - 39 Years	400	44.4	369	41.0
40 - 49 Years	353	39.2	358	39.8
50 - 59 Years	87	9.7	105	11.7
60+ Years	16	1.8	9	1.0
Missing	7	0.8	23	2.6
Number of Subordinates				
1 - 9	530	58.9	535	59.4
10 - 19	229	25.4	221	24.6
20 - 29	52	5.8	56	6.2
30 - 39	15	1.7	14	1.6
40+	44	4.9	45	5.0
Missing	30	3.3	29	3.2
Education				
Grades 9-12	28	3.1	85	9.4
Tech/Vocational	28	3.1	24	2.7
2 Years College	98	10.9	141	15.7
4 Years College	397	44.1	340	37.8
Graduate School	325	36.1	283	31.4
Missing	24	2.7	27	3.0

[†]N adds up to 900 and percentages add up to 100% for each gender for each variable.

Table 4.
Demographic Characteristics of Observers

Characteristics [†]	Bosses (N=2,171)		Peers (N=6,759)		Direct Reports (N=6,761)	
	n	%	n	%	n	%
Gender						
Male	1548	71.3	3771	55.8	2840	42.0
Female	545	25.1	2716	40.2	3616	53.5
Missing	78	3.6	272	4.0	305	4.5
Age						
< 29 Years	20	0.9	288	4.3	1108	16.4
30 – 39 Years	462	21.3	2348	34.7	2450	36.2
40 – 49 Years	995	45.8	2533	37.5	1838	27.2
50 – 59 Years	503	23.2	1037	15.3	702	10.4
60+ Years	72	3.3	144	2.1	143	2.1
Missing	119	5.5	409	6.1	520	7.7
Ethnicity						
African American	44	2.0	195	2.9	333	4.9
Am Indian or Alaskan Native	17	0.8	53	0.8	80	1.2
Asian or Pacific Islander	48	2.2	237	3.5	353	5.2
Hispanic	50	2.3	248	3.7	311	4.6
Caucasian	1859	85.6	5550	82.1	5205	77.0
Missing	153	7.0	476	7.0	479	7.1
Time Known Person Rated						
< 1 Year	229	10.5	636	9.4	880	13.0
1 – 4 Years	1041	48.0	3400	50.3	3803	56.2
5 – 10 Years	683	31.5	2106	31.2	1609	23.8
11 – 15 Years	147	6.8	393	5.8	277	4.1
16+ Years	71	3.3	223	3.3	192	2.8
Missing	0	0.0	1	0.0	0	0.0
Education						
Grades 1 – 8	0	0.0	1	0.0	5	0.1
Grades 9 – 12	66	3.0	380	5.6	750	11.1
Tech/Vocational	31	1.4	194	2.9	455	6.7
2 Years College	183	8.4	819	12.1	1211	17.9
4 Years College	732	33.7	2510	37.1	2499	37.0
Grad School	952	43.9	2199	32.5	1388	20.5
Missing	207	9.5	656	9.7	453	6.7

[†] Percentages add up to 100% for each variable within each observer group.

Table 5.
Self Ratings of Leadership Practices

Leadership Practice	Males (n=900)		Females (n=900)		F	p [†]	Effect Size
	Mean	SD	Mean	SD			
Creating a Vision							
Conservative	26.86	7.08	25.39	7.33	19.08	***	0.20
Innovative	30.28	9.72	29.25	9.22	5.47	*	0.11
Technical	34.43	9.66	35.09	9.14	2.42		-0.07
Self	21.55	7.80	20.90	7.75	3.33		0.08
Strategic	31.94	9.34	29.77	9.37	25.59	***	0.23
Developing Followership							
Persuasive	21.72	9.48	20.00	9.81	17.04	***	0.18
Outgoing	21.85	9.17	22.49	9.12	2.23		-0.07
Excitement	20.36	10.28	23.51	10.57	44.00	***	-0.30
Restraint	27.35	9.84	23.68	10.03	61.65	***	0.37
Implementing the Vision							
Structuring	27.98	10.11	29.31	9.85	8.90	**	-0.13
Tactical	25.51	6.28	25.62	6.14	0.14		-0.02
Communication	29.59	7.49	31.10	7.44	20.01	***	-0.20
Delegation	29.57	8.01	29.97	7.81	1.27		-0.05
Following Through							
Control	28.01	8.06	29.64	7.56	20.69	***	-0.21
Feedback	23.68	9.86	26.11	9.73	28.93	***	-0.25
Achieving Results							
Management Focus	31.30	8.61	31.58	8.30	0.53		-0.03
Dominant	21.68	9.65	22.98	9.03	9.25	**	-0.14
Production	25.81	9.70	27.55	9.34	16.13	***	-0.18
Team Playing							
Cooperation	31.70	8.25	31.52	7.89	0.26		0.02
Consensual	29.31	8.10	29.60	7.74	0.67		-0.04
Authority	28.55	9.23	28.39	9.01	0.14		0.02
Empathy	24.73	11.37	25.86	10.75	4.80	*	-0.10

[†] Significance of mean difference: * p < 0.05, ** p < 0.01, *** p < 0.001

Table 6.
Boss Ratings of Leadership Practices by Gender Rated

Leadership Practice	Gender of Managers Rated				F	p [†]	Effect Size
	Male (n=900)		Female (n=900)				
	Mean	SD	Mean	SD			
Creating a Vision							
Conservative	23.37	7.44	21.29	7.35	39.09	***	0.28
Innovative	18.28	8.07	17.42	7.71	5.46	*	0.11
Technical	30.16	8.69	29.29	8.64	5.01	*	0.10
Self	21.00	7.67	20.66	7.66	0.90		0.04
Strategic	24.47	9.00	22.27	8.77	29.11	***	0.25
Developing Followership							
Persuasive	19.45	8.43	19.37	8.24	0.04		0.01
Outgoing	17.31	9.93	17.14	9.70	0.15		0.02
Excitement	15.13	9.38	18.04	9.51	43.70	***	-0.31
Restraint	24.55	9.87	20.70	10.26	67.53	***	0.38
Implementing the Vision							
Structuring	24.35	9.51	25.03	9.18	2.43		-0.07
Tactical	22.12	5.47	21.59	5.77	4.15	*	0.09
Communication	23.24	6.57	24.49	6.38	16.85	***	-0.19
Delegation	21.92	7.90	21.07	8.07	5.25	*	0.11
Following Through							
Control	24.79	7.63	27.19	7.17	47.77	***	-0.32
Feedback	20.37	7.71	22.54	7.95	37.12	***	-0.28
Achieving Results							
Management Focus	20.88	9.67	20.86	9.33	0.00		0.00
Dominant	18.67	9.63	21.10	9.52	31.85	***	-0.25
Production	18.99	8.56	21.12	8.53	30.12	***	-0.25
Team Playing							
Cooperation	24.15	7.71	23.23	7.41	7.15	**	0.12
Consensual	23.13	7.56	23.62	7.25	2.18		-0.07
Authority	24.69	9.21	24.09	9.09	2.10		0.07
Empathy	18.37	10.94	19.48	10.74	4.94	*	-0.10

[†] Significance of mean difference: * p < 0.05, ** p < 0.01, *** p < 0.001

Table 7.
Peer Ratings of Leadership Practices By Gender Rated

Leadership Practice	Gender of Managers Rated				F	p [†]	Effect Size
	Male (n=900)		Female (n=900)				
	Mean	SD	Mean	SD			
Creating a Vision							
Conservative	23.22	5.35	21.81	5.10	33.96	***	0.27
Innovative	18.22	5.72	17.21	5.09	15.79	***	0.19
Technical	29.28	6.90	28.90	6.66	1.59		0.06
Self	21.15	5.48	20.39	5.15	9.83	**	0.14
Strategic	25.39	6.06	23.18	5.78	67.47	***	0.37
Developing Followership							
Persuasive	19.06	6.06	17.85	5.82	21.04	***	0.20
Outgoing	18.41	7.64	17.73	7.33	3.79		0.09
Excitement	14.88	7.66	17.05	7.40	38.56	***	-0.29
Restraint	23.63	7.74	20.61	7.66	71.20	***	0.39
Implementing the Vision							
Structuring	24.19	7.27	25.16	6.61	8.55	**	-0.14
Tactical	21.96	3.57	21.60	3.15	5.01	*	0.10
Communication	24.29	4.43	25.30	4.26	24.33	***	-0.23
Delegation	23.13	5.26	22.54	5.02	6.32	*	0.12
Following Through							
Control	23.86	5.33	25.57	4.81	51.56	***	-0.34
Feedback	20.57	5.62	22.33	5.99	42.05	***	-0.30
Achieving Results							
Management Focus	21.18	7.39	22.01	7.42	5.99	*	-0.11
Dominant	19.01	7.90	21.23	7.77	39.48	***	-0.28
Production	18.63	6.36	20.36	5.72	39.71	***	-0.29
Team Playing							
Cooperation	23.12	5.97	22.10	5.68	14.76	***	0.18
Consensual	23.32	5.61	23.62	5.31	1.35		-0.05
Authority	21.55	7.45	21.72	7.17	0.27		-0.02
Empathy	16.89	8.08	18.37	8.19	15.73	***	-0.18

[†] Significance of mean difference: * p < 0.05, ** p < 0.01, *** p < 0.001

Table 8.
Direct Report Ratings of Leadership Practices by Gender Rated

Leadership Practice	Gender of Managers Rated				F	p [†]	Effect Size
	Male (n=900)		Female (n=900)				
	Mean	SD	Mean	SD			
Creating a Vision							
Conservative	22.93	4.95	21.87	4.55	23.64	***	0.22
Innovative	18.43	5.38	17.84	4.98	6.09	*	0.11
Technical	28.77	6.53	28.52	6.47	0.74		0.04
Self	19.80	5.23	19.80	5.08	0.00		-0.00
Strategic	25.74	6.02	24.26	5.63	30.30	***	0.25
Developing Followership							
Persuasive	18.55	5.82	17.25	5.58	27.02	***	0.23
Outgoing	18.10	7.18	17.19	6.91	7.66	**	0.13
Excitement	16.53	7.59	18.70	7.25	38.16	***	-0.29
Restraint	22.61	7.23	19.86	7.10	66.00	***	0.38
Implementing the Vision							
Structuring	22.47	6.50	22.76	6.46	0.96		-0.04
Tactical	21.08	3.26	21.13	3.10	0.14		-0.02
Communication	24.82	5.02	25.90	4.94	21.27	***	-0.22
Delegation	25.91	5.15	25.23	4.83	8.97	**	0.14
Following Through							
Control	23.02	4.98	24.18	4.57	26.84	***	-0.24
Feedback	20.56	5.28	22.15	5.37	42.13	***	-0.30
Achieving Results							
Management Focus	22.38	6.70	23.85	6.51	24.66	***	-0.22
Dominant	19.43	7.45	21.76	7.39	50.52	***	-0.31
Production	20.29	6.21	21.65	6.04	25.96	***	-0.22
Team Playing							
Cooperation	21.51	5.34	20.45	5.23	20.10	***	0.20
Consensual	24.62	5.38	24.77	5.25	0.40		-0.03
Authority	20.60	6.97	20.68	6.40	0.07		-0.01
Empathy	18.04	7.90	18.97	8.22	6.28	*	-0.11

[†] Significance of mean difference: * p < 0.05, ** p < 0.01, *** p < 0.001

Table 9.
Summary of Gender Differences in Leadership
Practices Observed by Bosses, Peers, and Direct Reports

Leadership Practice	Rater Group			
	Self	Boss	Peers	Direct Reports
Creating a Vision				
Conservative	■	■	■	■
Innovative	■	■	■	■
Technical		■		
Self			■	
Strategic	■	■	■	■
Developing Followership				
Persuasive	■		■	■
Outgoing				■
Excitement	+	+	+	+
Restraint	■	■	■	■
Implementing the Vision				
Structuring	+		+	
Tactical		■	■	
Communication	+	+	+	+
Delegation		■	■	■
Following Through				
Control	+	+	+	+
Feedback	+	+	+	+
Achieving Results				
Management Focus			+	+
Dominant	+	+	+	+
Production	+	+	+	+
Team Playing				
Cooperation		■	■	■
Consensual				
Authority				
Empathy	+	+	+	+

Key: ■ males > females
 + females > males

Table 10.
Leadership Effectiveness Ratings By Observer Group and Gender Rated

Effectiveness Rating	Observer Group	N of Matched Pairs	Gender of Managers Rated				F	p [†]	Effect Size
			Male		Female				
			Mean	SD	Mean	SD			
Business Skills	Boss	577	31.45	4.27	30.65	4.67	9.62	**	0.18
	Peers	627	32.04	3.50	31.57	3.52	6.12	*	0.13
	Direct Reports	601	32.94	3.95	33.15	3.56	1.08		-0.06
People Skills	Boss	574	52.08	6.92	53.15	7.14	6.86	**	-0.15
	Peer	625	51.15	6.24	51.90	5.89	5.01	*	-0.12
	Direct Reports	626	51.69	7.07	52.95	7.21	9.90	**	-0.18
Overall	Boss	876	15.65	2.82	15.78	2.88	0.95		-0.04
	Peers	897	15.51	2.11	15.73	2.12	5.23	*	-0.10
	Direct Reports	890	16.00	2.24	16.29	2.20	7.77	**	-0.13

† Significance of mean differences: * p < 0.05, ** p < 0.01

Appendix A.

Variables Measured by the Leadership Effectiveness Analysis

Creating A Vision

Conservative: Studying problems in light of past practices to ensure predictability, reinforce the status quo and minimize risk.

Innovative: Feeling comfortable in fast changing environments; being willing to take risks and to consider new and untested approaches.

Technical: Acquiring and maintaining in-depth knowledge in your field or area of focus; using your expertise and specialized knowledge to study issues and draw conclusions.

Self : Emphasizing the importance of making decisions independently; looking to yourself as the prime vehicle for decision-making.

Strategic: Taking a long-range, broad approach to problem solving and decision making through objective analysis, thinking ahead, and planning.

Developing Followership

Persuasive: Building commitment by convincing others and winning them over to your point of view.

Outgoing: Acting in an extroverted, friendly and informal manner; showing a capacity to quickly establish free and easy interpersonal relationships.

Excitement: Operating with a good deal of energy, intensity, and emotional expression; having a capacity for keeping others enthusiastic and involved.

Restraint: Maintaining a low-key, understated and quiet interpersonal demeanor by working to control your emotional expression.

Implementing The Vision

Structuring: Adopting a systematic and organized approach; preferring to work in a precise, methodical manner; developing and utilizing guidelines and procedures.

Tactical: Emphasizing the production of immediate results by focusing on short-range, hands-on, practical strategies.

Communication: Stating clearly what you want and expect from others; clearly expressing your thoughts and ideas; maintaining a precise and constant flow of information.

Delegation: Enlisting the talents of others to help meet objectives by giving them important activities and sufficient autonomy to exercise their own judgment.

Following Through

Control: Adopting an approach in which you take nothing for granted, set deadlines for certain actions and are persistent in monitoring the progress of activities to ensure that they are completed on schedule.

Feedback: Letting others know in a straightforward manner what you think of them, how well they have performed and if they have met your needs and expectations.

Achieving Results

Management Focus: Seeking to exert influence by being in positions of authority, taking charge, and leading and directing the efforts of others.

Dominant: Pushing vigorously to achieve results through an approach which is forceful, assertive and competitive.

Production: Adopting a strong orientation toward achievement; holding high expectations for yourself and others; pushing yourself and others to achieve at high levels.

Team Playing

Cooperation: Accommodating the needs and interests of others by being willing to defer performance on your own objectives in order to assist colleagues with theirs.

Consensual: Valuing the ideas and opinions of others and collecting their input as part of your decision-making process.

Authority: Showing loyalty to the organization; respecting the opinions of people in authority, and using them as resources for information, direction and decisions.

Empathy: Demonstrating an active concern for people and their needs by forming close and supportive relationships with others.

Appendix B. Effectiveness Rating Scales

Each rating scale is presented as a an anchored rating scale from 1 (low) to 7 (high). Business Skills, People Skills, and Overall Effectiveness scales are formed through simple summation.

Business Skills

Business "smarts" (i.e., has an instinct for making money, exploits business opportunities, is wily in business dealings).

Financial understanding (i.e., understands and can deal with financial issues such as budgeting, accounting, costs, P&L statements).

Ability to see the big picture perspective (i.e., has a strategic orientation, sees interconnections between his/her own and company's objectives, anticipates problems).

Capacity for effective thinking (i.e., learns rapidly, deals well with concepts, quickly gets to the heart of an issue, is incisive, etc.).

Ability to make effective decisions.

Insight into how to use organizational resources (i.e., is able to build alliances, is sophisticated about organizational dynamics, has many contacts).

People Skills

Sensitivity to other people's feelings (i.e., shows concern, has insight, is helpful, avoids hurting others' feelings).

Likableness (i.e., easy, friendly, quick to smile, good-hearted).

Willingness to listen (i.e., understands quickly, acknowledges communication, goes out of his/her way to get others' views).

Ability to work with diverse people (i.e., people from different backgrounds, cultures, belief systems and/or life styles).

Capacity to contribute to team performance (i.e., is willing and able to act as a team player, complements the efforts of others).

Ability to develop people (i.e., allows room for mistakes, stimulates growth, challenges positively, delegates authority).

Ability to get things done through people (i.e., charges effectively, sets high standards, organizes efforts well).

Effectiveness as an advocate for his/her people (i.e., defends his/her people appropriately, sells their views to management, protects his/her people from arbitrary decisions).

Capacity to get people enthusiastic and involved (i.e., gets people on his/her side, is persuasive and inspiring).

Credibility and ability to inspire confidence with peers and subordinates (i.e. is trusted and respected, delivers on promises).

Overall

Overall effectiveness as a leader/manager (i.e., total level of performance against expectations, total impact in role).

Future potential (i.e., has the ability to go beyond present level versus being topped out, is likely to be a major resource to the organization).

Credibility with management - ability to inspire confidence with superiors (i.e., communicates well, delivers on promises, thinks in similar ways).

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