

**TITLE:** An Analysis of Leadership Behaviors in the Construction Industry: Identification of Influences that Develop Top Performing Project Managers and Engineers

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**OBJECTIVE:** The purpose was to determine if there were measurable and quantifiable differences in the performance of construction project managers, especially regarding leadership and their antecedents.

**METHODOLOGY:** Within a multinational construction company a pool of 335 construction project managers was determined, from which corporate senior executives identified 40 as top performers (TP). Forty project managers were randomly selected from the remaining pool as a control group (GG). Thirty-five TPs participated (87%) and 33 (83%) formed the control group. Each respondent completed the Leadership Practices Inventory and requested 10 constituents to complete the LPI-Observer (a minimum of 7 were returned for each responded). A researcher generated supplemental questionnaire, aimed at identifying causal influences, was also distributed. The Cronbach alpha (internal reliability) coefficients for all five LPI scales in this study exceeded .734. The two groups did not differ from one another by age, gender, type of construction project being performed, years of experience, years of formal management training, years of formal leadership training, or educational degree.

In the leadership practices of Modeling, Inspiring and Challenging, top performers reported significantly higher scores than the control group managers. Managers viewed the TPs engaging more in Modeling and Challenging than did the managers of CG.

Mentoring and coaching, along with reading and self-study, were mentioned by TPs as influencing their leadership development more than the CG. Observing and job experience were also reported more frequently in leadership development than by the CG. "These data imply that coaching, mentoring, and efforts by initial supervisors to develop management and leadership skills may have been significant in the development of top performing construction project managers" (p. 111).

"Top performers say they spend less time on management and more time on leadership by a difference that is statistically significant" (p. 120). For TP the leadership/management mix is 47/53 and for CG it is 35/65 as a percentage of time spent each day. "The data shows that leadership behaviors are measurably higher for top performers than for control group performers. The literature review supports this contention. This finding implied that organizations should strive to

establish a leadership culture from top to bottom throughout the organization to have a sustained positive impact at every level” (p. 145).

This research plan was also presented at several conferences:

ASCE Constructon Research Council PhD Research Symposium (Nashville), December 14, 2003. Proccedings, pp. 120-124. (With Lansford Bell).

Specialty Conference on Leadership and Management in Construction (Hilton Head), March 24-26, 2004. Proceedings, pp. 135-139. (With Lansford Bell).