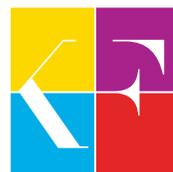


# Korn Ferry's **Four Dimensional Executive Assessment**



**Technical  
brief**



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Technical brief

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For the sake of linguistic simplicity in this product, where the masculine form is used, the feminine form should always be understood to be included.

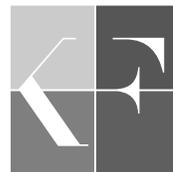
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Version 15.1a—10/2016

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## Korn Ferry's Four Dimensional Executive Assessment

### A context driven assessment

The process of fitting a candidate to a leadership role according to the results of assessments can be highly complex. On the one hand, much research suggests that certain person characteristics do seem to have a non-context and non-role-specific effect on job performance. For example, individuals with higher general cognitive ability (e.g., IQ) tend to perform better in most professional vocations with few exceptions. Yet a one-size-fits-all approach to the predictive utility of many potentially useful psychological constructs is likely to lead human resources professionals and decision makers astray in a considerable number of cases.

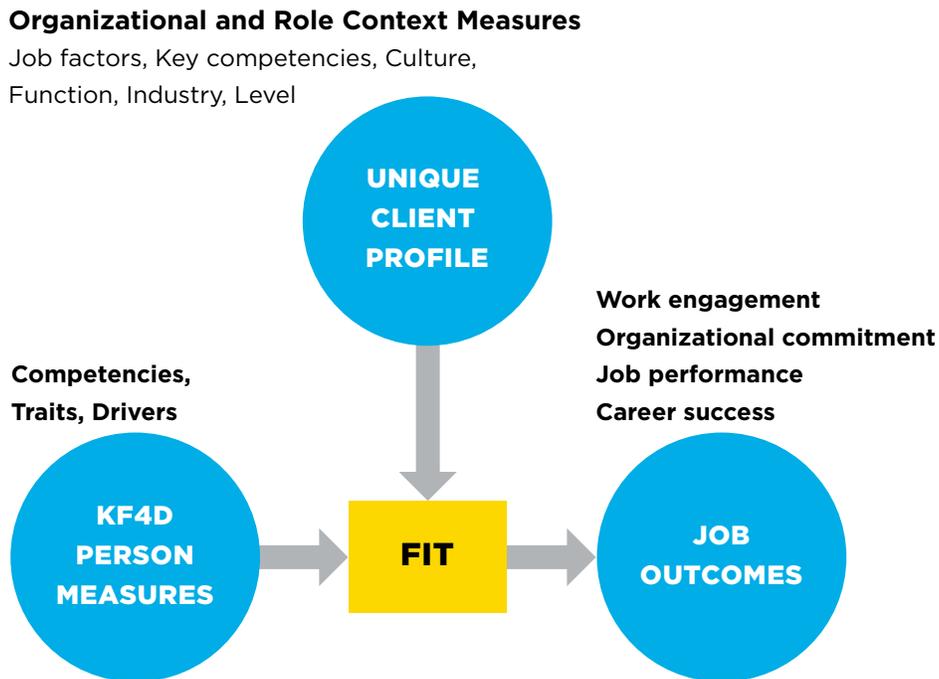
We know that no job is the same. The nature of job roles, organizational contexts, organizational culture, and other variables are all likely to moderate the desirability of a given response profile on any single measure or group of measures. For example, highly successful individuals in vocations requiring a high degree of expert orientation often have and likely require quite different social behavior and problem-solving tendencies compared to highly successful individuals in people management and/or executive strategy and decision-making vocations. Individuals who are well-adjusted socially and emotionally tend to perform better in most jobs, but the impact and importance of emotional intelligence on job performance and related outcomes is more salient for some job roles, such as those that require a greater degree of effectively motivating and leveraging the skills and abilities of others.

Interactions between person characteristics and context are often critical. A specific profile in a given job role can be desirable in one industry, company type, company size, or organizational culture, but much less desirable or undesirable in others. In short, some measures yield a single desirable score or score profile that can be expected to predict success or indicate potential for success for nearly all respondents across roles and contexts, while the desirability of scores or score profiles on other measures are subject to the specifics of job and context.



Korn Ferry's Four Dimensional Executive Assessment (KF4D-Exec) uses organizational and role **Context Measures** provided by the hiring organization along with Korn Ferry's extensive database to describe a **Unique Client Profile** (UCP) for a job that will optimize the prediction of **Job Performance** by the **KF4D Person Measures**. Figure 1 below illustrates the process.

**Figure 1.** KF4D-Exec Conceptual Framework



As we increase the fit of the KF4D person measures to the UCP for a job, we increase desirable job outcomes. Whether higher KF4D person measures scores are desirable in every search situation or whether they depend on context measures is a reflection of the way in which the person measures impact is moderated by organizational and role context measures—and the nature and size of the moderation can vary. In some cases, elevated scores on a measure might always be predictive of increased (or decreased) success, but the magnitude of its predictive coefficient(s) might vary across job roles and organizational contexts. Here, we have *moderated magnitude*, which can indicate the degree of salience for a context. On the other hand, elevated levels on some variables may sometimes be positively associated with desired outcomes and other times negatively associated. Here, we have *moderated sign*, which will indicate whether an elevated score is desirable or undesirable. Clearly, magnitude and sign moderation are not mutually exclusive, although elevated levels of variables having only the former will help forecast success in all or most cases, regardless of contexts or the nature of job roles. Identifying not only specific moderator variables but also gauging *whether, how,* and the *degree* to which a variable's impact is moderated has much potential to optimize prediction of performance for each job.

In the following sections of this brief, we begin by describing our KF4D person measures, which include personality measures (Traits), skill and behavioral measures (Competencies), and motives/values measures (Drivers). We then briefly discuss the nature of executive job roles and organizational contexts, with particular attention to identifying key organizational and role context measures in the areas which interact with and moderate the desirability of specific profiles in a way that optimizes candidates' fit for particular roles.

## Person measures

### Traits

Traits are personality characteristics that exert a notable influence on behavior. Examples include optimism, introversion, and other natural leanings, such as social astuteness. In organizational psychology, traits may be more or less crucial for success depending on job roles and contexts. In KF4D-Exec, we measure 14 traits and 3 higher-order trait factors, which are described in Table TRDEF.

**Table TRDEF.** KF4D-Exec traits, higher-order factors, and definitions

FACTOR	TRAIT	DEFINITION
<b>Agility</b>		Capacity for complexity, novelty, adaptability, cognitive flexibility, risk, ambiguity, and change; tendency to eschew dogmatism and rigidity; high value on learning and growing from experiences, including failures.
	Risk-taking	A willingness to make decisions based on limited information or to take a stand.
	Adaptability	Comfort with unanticipated changes of direction or approach.
	Tolerance of ambiguity	Comfort with uncertain, vague, or contradictory information that prevents a clear understanding or direction.
	Curiosity	The extent to which people are likely to tackle problems in a novel way, see patterns in complex information, and pursue deep understanding.
	Focus	Preference for organization, procedure, and exactitude.
<b>Social leadership</b>		Capacity for composure, self-awareness, empathy, affiliation, sociability, and relating socially in ways that motivate and facilitate the success of others in terms of work-related activities.
	Composure	The ability to stay calm and poised in stressful, difficult, or ambiguous situations.
	Situational self-awareness	Maintaining broad, receptive, and non-judgmental attention to present experience.
	Sociability	The degree to which people enjoy interacting with others.
	Influence	The degree to which people motivate and persuade others.
	Empathy	Being attuned to others' feelings, motivations, and concerns.
	Affiliation	The degree to which people are inclined to align with a larger team or organization toward a common goal.
<b>Energy</b>		Capacity for tenacity, achievement orientation, and leadership ascendance despite obstacles and difficulties.
	Need for achievement	A tendency to work intensely to achieve and exceed difficult standards.
	Persistence	A tendency toward passionate and steadfast pursuit of personally valued long-term or lifetime goals, despite obstacles, discouragement, or distraction.
	Assertiveness	The degree to which people are inclined to assume wide responsibility, take charge, and lead others.

## Drivers

Work motivation has been a central focus of organizational research for many years. This high level of interest can be attributed to the long-held belief that individual behavior and performance are primarily influenced by knowledge and skills, motivation, and situational constraints/facilitators. In KF4D-Exec, we assess enduring, distal motivations that can predict and explain an individual's relatively stable behavioral patterns. These “drivers” are deep internal values, motivations, and aspirations that shape a person's choices across situations and relatively long time frames. We measure 6 drivers, as shown in Table DRDEF.

**Table DRDEF.** KF4D-Exec driver names and definitions

DRIVER	DEFINITION
<b>Balance</b>	The degree to which individuals are motivated by achieving a balance between work and personal life. High scorers prefer work-related flexibility, broadly defined self-development, and prefer to avoid high stress life-defining job roles. Low scorers place career as a top life-priority and a primary component of identity.
<b>Collaboration</b>	The degree to which individuals prefer work-related interdependence, group decision making, group-based goal setting and pursuit. High scorers prefer to be part of teams, build consensus, share responsibility, and rely on social behavior for work-related success. Low scorers prefer work characterized by limited reliance on social behavior, independence, and being primarily responsible for their own work and decisions.
<b>Power</b>	The degree to which individuals are motivated by work-related status, influence, and the ability to make an impact on the organization. High scorers seek to climb to higher levels of visibility and responsibility within an organization and to acquire a high degree of influence. Low scorers are driven by intrinsic interest in one's work and prefer to avoid high-visibility and high-influence job roles.
<b>Challenge</b>	The degree to which individuals are motivated by achievement in the face of tough obstacles. High scorers prefer challenging and competitive work assignments and environments that often preclude operating comfortably and in familiar ways. Low scorers prefer non-competitive environments and work that allows them to stick to their strengths.
<b>Independence</b>	The degree to which an individual prefers independence and an entrepreneurial approach to work activities. High scorers prefer freedom from organizational constraints, setting and pursuing their own vision, and value employability more than job security. Low scorers prefer pursuing group-defined goals, structured organizations, and prefer to identify strongly with a particular organization and its collective vision.
<b>Structure</b>	The degree to which individuals prefer work-related stability, predictability, and structure. High scorers seek job security, known problems and solutions, and jobs that more often require depth and specialized knowledge/skill. Low scorers prefer work characterized by meritocracy, breadth, ambiguity, variety, and unpredictability.

## Competencies

Competencies are the skills and behaviors required for success (Lombardo & Eichinger, 2009). We conceptualize and design our self-ratings of competencies as measures of *self-efficacy* for the performance of competencies. Self-efficacy is among the more widely investigated and well-known theoretical constructs derived from social-cognitive psychology and refers to an individual's state of mind concerning their capacity to execute upon certain behaviors and/or to attain certain outcomes related to specific skills or behaviors. Because competencies are behaviors and skills, they are well-suited to be conceptualized and measured according to a self-efficacy framework. Table COMDEF shows the 15 competency areas we measure in KF4D-Exec.

**Table COMDEF.** Executive search competency names and definitions

<b>FACTOR</b>	<b>COMPETENCY</b>	<b>DEFINITION</b>
<b>Thought</b>	Balances stakeholders	Anticipating and balancing the needs of multiple stakeholders.
	Cultivates innovation	Creating new and better ways for the organization to be successful.
	Global perspective	Taking a broad view when approaching issues, using a global lens.
	Strategic vision	Seeing ahead to future possibilities and translating them into breakthrough strategies.
<b>Results</b>	Aligns execution	Planning and prioritizing work to meet commitments aligned with organizational goals.
	Ensures accountability	Holding self and others accountable for meeting commitments.
<b>People</b>	Develops talent	Developing people to meet both their career goals and the organization's goals.
	Engages and inspires	Creating a climate in which people are motivated to do their best to help the organization achieve its objectives.
	Manages conflict	Handling conflict situations effectively, with a minimum of noise.
	Navigates networks	Effectively building formal and informal relationships inside and outside the organization.
	Persuades	Using compelling arguments to gain the support and commitment of others.
<b>Self</b>	Courage	Stepping up to address difficult issues, saying what needs to be said.
	Manages ambiguity	Operating effectively, even when things are not certain or the way forward is not clear.
	Nimble learning	Actively learning through experimentation when tackling new problems, using both successes and failures as learning fodder.
	Situational adaptability	Adapting approach and demeanor in real time to match shifting demands of different situations.

## Technical features

**Addressing the problem of faking.** Respondents have increasingly become aware that, in many or most applications, extreme high (or low) scores are desirable. When this knowledge is coupled with a general understanding of desired responses to particular content, the potential for faking in tests using Classical Test Theory and related conventional response formats becomes particularly problematic and disconcerting.

As an alternative, Brown and Maydeu-Olivares (2011) developed a structured multidimensional forced-choice response model that addresses problems associated with faking, response bias, and forced-choice ipsativity. The model rearranges forced-choice responses into a series of exhaustive binary comparisons, thereby allowing for components of non-ipsative trait measures to drive parameter estimation, scoring, and interpretation of normative person-scores. The model is novel in that it creates a relative independence among otherwise predictably auto-correlated forced-choice based construct scores. It is flexible in terms of forced-choice block sizes, number of items per construct, and number of constructs. We utilize this model in the KF4D-Exec assessment.

**Administration.** Our measures of traits, drivers, and competencies are all administered in forced-choice response format in order to decrease potential problems associated with faking and response bias. Each construct type is grouped together in its own test form. Traits are measured with traits, drivers with drivers, and competencies with competencies. Construct scores are estimated using a modification (Zes, Lewis, & Landis, 2015) of the Brown and Maydeu-Olivares (2011) Forced-Choice Item Response Theory (FCIRT) model to address ipsativity and arrive at construct estimates whose correlations are based on the nature of the constructs and not forced-choice item response format artifacts.

Eight items were designed to tap each trait, and trait response blocks contain four items each. Each competency and each driver are measured using ten items, and response blocks contain seven and six items each, respectively.

**Reliabilities.** Reliabilities for each of our person measures can be examined in Tables RCOMP, RTRAIT, and RDRIVE below and show acceptable test reliability for each of our KF4D-Exec measures ( $r'_{tt} \geq .72$  in every case). All empirical data collection and analysis was done between 2013 and 2015, as noted in the more comprehensive *Korn Ferry's Four Dimensional Executive Assessment Research Guide and Technical Manual* (Lewis, Goff, Jones, & Hezlett et al., 2015).

**Table RCOMP.** Composite reliabilities for competencies

<b>FACTOR</b>	<b>COMPETENCY</b>	<b>RELIABILITY ESTIMATE</b>
<b>Thought</b>	Balances stakeholders	0.87
	Cultivates innovation	0.78
	Global perspective	0.82
	Strategic vision	0.84
<b>Results</b>	Ensures accountability	0.84
	Aligns execution	0.87
<b>People</b>	Navigates networks	0.87
	Engages and inspires	0.85
	Develops talent	0.81
	Manages conflict	0.84
	Persuades	0.84
<b>Self</b>	Courage	0.88
	Manages ambiguity	0.86
	Nimble learning	0.84
	Situational adaptability	0.77

Note.  $N = 1001$ . Reliabilities are average trait range reliabilities from estimated IRT scores.

**Table RTRAIT.** Composite reliabilities for traits

<b>FACTOR</b>	<b>TRAIT</b>	<b>RELIABILITY ESTIMATE</b>
<b>Agility</b>	Adaptability	0.89
	Curiosity	0.81
	Focus	0.80
	Risk-taking	0.83
	Tolerance of ambiguity	0.85
<b>Social leadership</b>	Affiliation	0.82
	Composure	0.86
	Empathy	0.78
	Influence	0.83
	Situational self-awareness	0.72
	Sociability	0.86
<b>Energy</b>	Assertiveness	0.88
	Need for achievement	0.81
	Persistence	0.84
<b>Higher-order composites</b>	Agility	0.89
	Social leadership	0.87
	Energy	0.81

Note.  $N = 2022$ . Sub-domain reliabilities are average trait range reliabilities from estimated IRT scores. Composite score reliabilities are Mosier (1943) reliabilities.

**Table RDRIVE.** Composite reliabilities for drivers

<b>DRIVER</b>	<b>RELIABILITY ESTIMATE</b>
<b>Balance</b>	0.83
<b>Collaboration</b>	0.83
<b>Power</b>	0.85
<b>Challenge</b>	0.85
<b>Independence</b>	0.83
<b>Structure</b>	0.75

Note.  $N = 2001$ . Reliabilities are average trait range reliabilities from estimated IRT scores.

## Context measures

Context measures are provided by client subject-matter experts as part of the Unique Client Profile process. These measures moderate and determine the nature and magnitude of KF4D-Exec person measures' utility and, as such, help to increase the possibility of an optimal match between persons and particular job roles. As previously discussed, context measures are linked to the salience of a predictor across contexts and help determine whether a measure is positively or negatively predictive of outcomes for a particular leadership role.

## Organizational culture

Individual-organization fit is particularly vital at the executive level because senior leaders have greater potential impact on organizational cultures in terms of affecting culture and/or fitting in a given culture. Organizational culture—a set of shared values, beliefs, and norms that are reflected in practices and behaviors—is the “glue” that holds an organization together. Assessing and selecting new executives who match the ideal culture could become an important step toward successful organizational transformation.

Our executive search cultural assessment is very brief, administered only to client representatives close to a specific search engagement. It is based, in part, on Cameron and Quinn's (2006) competing values culture model, which specifies two dimensions—internal vs. external and stable vs. flexible. The two dimensions create four prototypical organizational cultures. In our executive assessment, we largely adopt the Cameron and Quinn (2006) four types, and have client representatives rank related descriptions of each from most to least like their own culture or their ideal culture. Each type is described below using our own terms.

**Regulatory** organizations are characterized by a primary need for accountability, efficiency, and adhering to standards. They tend to be improvement and stability oriented, with an emphasis on creating efficient and reliable systems and processes.

**Collaborative** organizations tend toward a long-term focus on building and maintaining cohesion, community, belonging, and empowerment among its members. They are people oriented and emphasize continuous development and training, particularly among internal members and stakeholders.

**Competitive** organizations tend toward long- and short-term focus on profitability and earnings. They are customer and market oriented and emphasize goal setting, goal achievement, and driving for results.

**Innovative** organizations focus on change, expansion, creating the new and different, and market disruption.

## Role variability

Many upper-level managerial and executive leadership roles are often similar. They typically involve high-stakes decision making, a large scope of responsibility, and high-profile accountability for company and/or business unit outcomes. Nonetheless, executive roles and role contexts also vary in important ways. This variability can sometimes impact the desirability of scores or score profiles on assessments.

Traditional job analysis is often atheoretical and can create difficult challenges to generalizability across jobs and organizations. More recent thinking characterizes traditional job analysis as increasingly obsolete, perhaps especially for upper-level managers and executives. In light of emerging research on job analysis and our focus on upper-level management and executive leaders, we choose to make a distinction between functional/legacy vocational job analyses and what high-profile researchers have otherwise referred to as trait- or values-based job analysis, asserting that **person** variables (competencies, traits, and drivers) are important to the extent that **contexts** provide cues and needs that allow for or require their expression. We employ a six-factor model of executive and upper-level manager role variability that is expected to interact with assessment profiles to inform person-role fit. The six work-analysis areas are described below.

**Strategic vs. Tactical.** The former involves long-term goal setting and vision, while the latter involves driving execution and carrying out strategic initiatives that have been prescribed.

**Ambiguity vs. Clarity** in goals and solutions. The former is characterized by uncertainty and risk in goals and methods by which goals are achieved. The latter primarily involves executing on known objectives by using or identifying best-practice processes and ensuring accountability and compliance.

**Matrixed/Lateral Influence vs. Top-Down.** The former emphasizes influencing without authority and nurturing wide, self-determined buy-in among organizational members. The latter emphasizes formal decision-making authority and siloed organizational structure that render formalized rank and prescriptive management relatively important and effective.

**Change Agents vs. Stability Managers.** The former oversees and facilitates change, innovation, and adaptation of internal structures and processes. The latter involves a greater emphasis on overseeing and facilitating maintenance and ensuring the flow and continuity of existing operations, organizational processes, and organizational structures.

**Deep Experts vs. Broad/Fast Learners.** Some upper-level managerial roles require individuals who are depth oriented, high experts in some area(s), and/or relatively technical and/or specialized. Other roles require professionals who are breadth oriented, more focused on fast and wide learning, and likely rely more on people management, talent deployment, and social behavior as tools for success.

**Stable vs. Volatile Objectives.** Upper-level managerial roles may primarily involve legacy and/or narrowly defined goods and services and related processes. Other roles involve identifying and maintaining poise for effectively reacting to quick-changing and/or novel objectives characterized by market responsiveness, continually emerging opportunities, and/or change.

## Predicting outcomes

KF4D-Exec person measures have been validated against a variety of outcome variables, including organizational commitment and career success. It also shows expected and significant relationships with management level, managerial scope, and work-analysis variables. *Work engagement* has also been central to our calibration efforts.

Work engagement reflects the extent to which professionals are satisfied with and emotionally invested in their jobs and whether they will expend discretionary effort for their organizations. It is often of particular interest to HR professionals and organizational scientists and is known to be markedly predictive of both organizational and person-level outcomes including service, sales, quality, retention, profits, shareholder returns, turnover, customer service, productivity, job performance, and others. Many also link collective worker engagement to industry and even national outcomes. In the examples below, findings were calibrated according to outcome variables including work engagement and career success, as well as other key correlates like management level and our six work-analysis variables.

## Prototypic roles based on context measures

We emphasize that our context measures yield numeric information and allow for a near-infinite number of customized role/context characterizations. Yet, within both the psychological research literature and in our own calibration data, certain managerial role *types* are found repeatedly and have important implications and utility for demonstrating how roles and contexts moderate the relationships between KF4D-Exec measures and outcome variables.

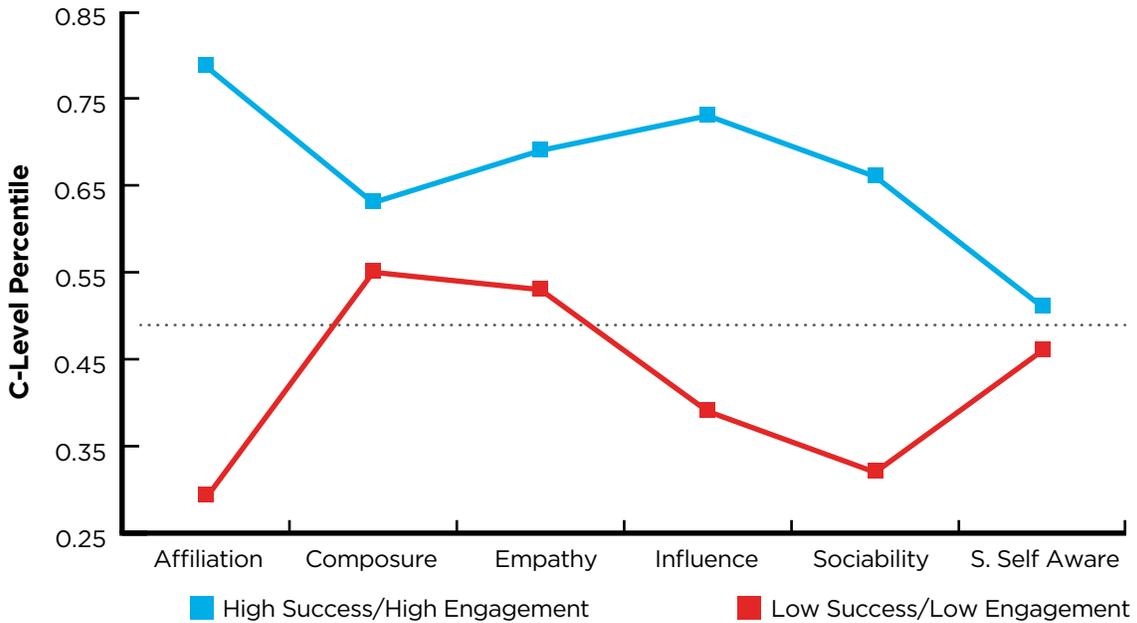
For example, using contextual variables, the commonly seen *Architect* role (e.g., Tropman & Wooten, 2013) is characterized by high ambiguity, volatile objectives, matrixed/lateral influence, high strategic and change orientation, and low depth/expertise in favor of breadth and fast/wide learning orientation to management. The research literature and the patterns in our own data suggest that this type best represents today's prototypical upper-level or C-level executive job role. The *Builder* or maintainer role is also a known and commonly observed archetype and is typically characterized, according to our work-analysis variables, by a tactical and maintenance orientation, clarity, deference to top-down rank-based influence, as well as relatively high depth and expertise orientation.

## Ideal scores vary by role

Figure ST1 shows model-implied typical social leadership sub-domain scores for high and low success/engagement persons in the Architect role. The typical high success/high engagement Architects emphasize Affiliation and Influence in leadership, while also being notably above C-level averages in both Empathy and Sociability. The least effective Architects, on the other hand, lead with Composure and Empathy, while typically having scores on all other Social leadership measures that are below C-level averages, most notably Affiliation and Sociability. In short, the strengths of the most effective Architects are Affiliation (79th percentile) and Influence (73rd percentile) and the strengths of the least effective are Composure and Empathy.

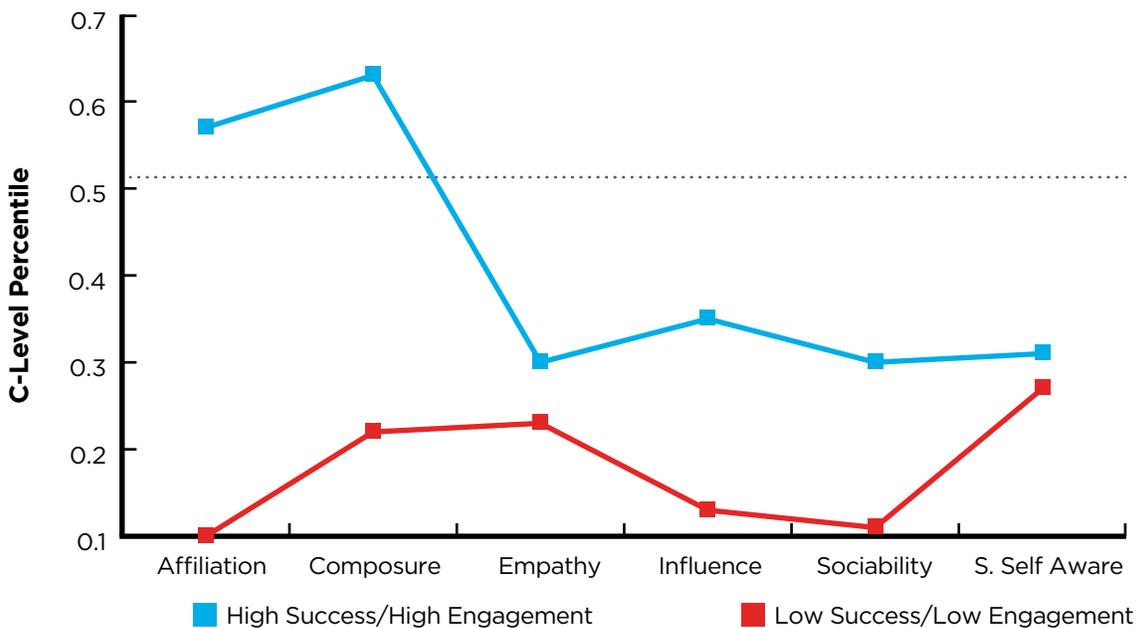


**Figure ST1.** Model-implied Social leadership sub-domain scores across engagement/success levels for Architect roles



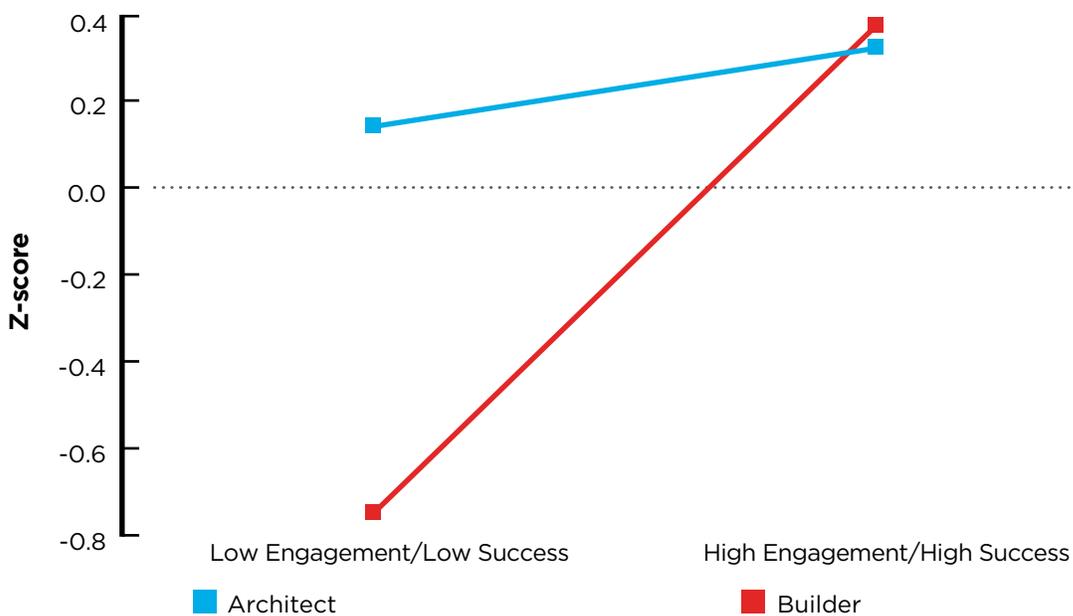
In contrast, the most effective Builders lead with Composure (65th percentile) and Affiliation (57th percentile), as shown in Figure SB1. They also may have relatively elevated within-group Influence scores. Still, in all areas other than Composure and Affiliation, high success/high engagement Builders have scores that are typically higher than low success/low engagement Builders, but which are still lower than C-level averages. That the *least* effective Architects and the *most* effective Builders both lead with Composure illustrates KF4D-Exec's potential to detect and explicate moderation and contextually defined fit.

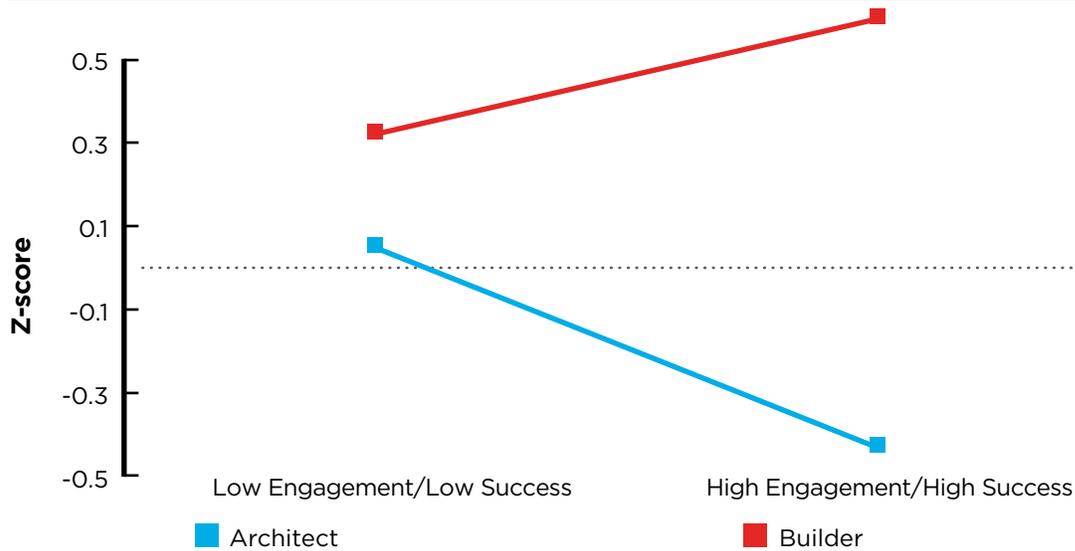
**Figure SB1.** Model-implied Social leadership sub-domain scores across engagement/success levels for Builder roles



The different and relative importance of Composure across Architects and Builders is, in part, a result of its moderated predictive utility across groups, which in this case is an example of moderated magnitude. Composure is positively predictive of success/engagement for both groups, but its predictive utility is far higher for Builders than for Architects, as can be seen in Figure SS2. As such, the impact of (negative) departure from a Composure target score is likely and typically more salient when trying to understand whether a candidate would be relatively successful in a Builder role, given its markedly steeper relationship with success/engagement among that group. A similar but notably different example of moderation can be seen in Figure AS3, which represents an example of moderated sign. Focus scores are predictive of success and engagement for both Architects and Builders, but the nature of the predictive utility varies systematically across the groups. For Builders, elevated Focus scores are desirable, while for Architects, elevated Focus scores are undesirable. As such, candidate Focus scores that are below the target for Builders are potentially problematic for Builders, while candidate Focus scores above the target are less or non-problematic. For Architects, however, the opposite is typically true.

**Figure SS2.** Model-implied Composure scores across engagement/success levels and role types



**Figure AS3.** Model-implied Focus scores across engagement/success levels and role types

We again emphasize that our model equations do not require deferring to types or categorical conceptualizations of job roles, but allow for the imputation of continuous or quasi-continuous values (ranging from 1.00 to 5.00) for each of the work-analysis variables. We only employ the Architect and Builder archetypes here in order to facilitate discussion and draw substantive comparisons between leaders for exemplary purposes.

### Predicting outcomes with the full KF4D-Exec dynamic model

The full KF4D-Exec model is a dynamic model, designed to account for differences in roles, job context, culture, and the like to maximize the prediction of performance across all jobs. When using the full dynamic model, with contextual variables, and related interactions with scores, KF4D-Exec *uniquely* accounts for the following differences in critical performance variables.

- 32.2% of the variance in work engagement (multiple  $R = .57$ )
- 16.5% of the variance in organizational commitment (multiple  $R = .41$ )
- 16.3% of the variance in compensation (“career success” multiple  $R = .40$ )
- 6.4% of the variance in management level (multiple  $R = .25$ )
- 9.3% of the variance in management scope (multiple  $R = .31$ )
- 8.6% of the variance in management experience (multiple  $R = .29$ )

Looking in more detail at work engagement, fit to target profiles is associated with increased likelihood of work engagement levels. Specifically:

- Individuals having a high degree of fit to KF4D-Exec target profiles are **12.7x (or 1170%) more likely to be highly engaged** compared to individuals with *low* fit to target profiles.
- Individuals having a high degree of fit to KF4D-Exec target profiles are **4.5x (350%) more likely to be highly engaged** compared to individuals with *moderately low* fit to target profiles.
- Individuals having a high degree of fit to KF4D-Exec target profiles are **3.6x (260%) more likely to be highly engaged** compared to individuals with *average* fit to target profiles.

## Fairness and group differences

An important question to examine is how various sub-groups score on assessment tools. This helps to anticipate the expected effect of using the tools on the demographics of the workforce. Fairness of assessments is an important objective of Korn Ferry, and assessments are designed to not disadvantage any group. Adverse impact occurs when employee selection procedures used in making employment decisions have the effect of selecting persons belonging to a historically disadvantaged group at a rate that is substantially lower than that of the group with the higher selection rate. Adverse impact may occur due to the characteristics of an assessment tool or other components included in the selection process, or, due to characteristics of the labor pool, recruitment practices, or other process factors.

Korn Ferry has carefully evaluated the trait-based scales in KF4D-Exec for the potential of adverse impact. A typical way of describing the potential for adverse impact is in terms of effect size comparing individuals from historically disadvantaged groups with the majority group. This is a standardized mean difference. An effect size can be interpreted as a small, medium, or large difference in average score. A commonly used interpretation is as follows: an effect size of 0.2 is considered a small effect, 0.5 a medium effect, and 0.8 and up a large effect (Cohen, 1988).

Our goal is to keep group differences to a minimum. To place the effort in context, a review of the literature (Hough, Oswald, & Ployhart, 2001) describes cognitive ability test effect sizes range up to -1.0 (negative values indicate lower scores for historically disadvantaged groups). This can result in substantial disadvantage to some minority groups. KF4D-Exec does not use cognitive ability tests, relying instead on tests of non-cognitive traits, drivers, and competencies. Non-cognitive, or trait-based measures, tend to have far smaller effect sizes, with most near 0 and some ranging up toward +/-0.3. Of course, in any sample, some effect sizes will be positive for minority groups. In general, with standard and reasonable uses of assessments, effect sizes that are  $\leq$  an absolute value of 0.25 are unlikely to provide either substantial advantage or disadvantage for any group.

In KF4D-Exec, there are up to 38 scores reported. Sufficient sample sizes exist for us to evaluate effect sizes for gender and historically disadvantaged ethnic groups (African American, Asian, and Hispanic-Latino). There are  $3 \times 38 = 114$  comparisons for ethnicity. Of the 114, only 3 have an effect size  $< -0.25$  (disfavoring the minority group) and 8 have an effect size  $> 0.25$  (favoring the minority group). Median effect size for ethnicity is 0.02, indicating a very slight trend toward favoring minority groups a small amount. For gender, among the 38 comparisons, there were no effect sizes  $< -0.25$ , and only two were  $> 0.25$ . Median effect size for gender is 0.01. Overall, there is no evidence of a general trend favoring or disfavoring any historically disadvantaged group.

## Intended use

KF4D-Exec is designed to be employed as part of a broader and high-touch process by which candidates are recommended for upper-level management and/or executive role vacancies. It was not developed or intended for use as a screening tool, but rather as a supplement to Korn Ferry's long-standing, well-informed, and comprehensive executive search process in which our Search Partners and Search Professionals work with clients to identify and vet candidates using their own wealth of experience, insight, expertise, and relationships. KF4D-Exec and all related processes are designed to *contribute* to related discussions, serving as a single data-point among many that are often otherwise qualitative and/or based on insight and conditions that KF4D-Exec was not designed to measure or incorporate. Ultimate decisions concerning best-fit candidates are made as a result of discussions and multiple points of contact between client representatives, candidates, and Korn Ferry Search Professionals. We place high value and ultimately defer to the expertise and experience of our Search Partners and related personnel. KF4D-Exec was designed for descriptive and value-added purposes to supplement their work and not to replace nor trump their deep professional skill, judgment, insight, and experience.

In aggregate, KF4D-Exec offers both predictive and descriptive value-added utility. While predictive utility is perhaps often emphasized in applied use and in validation efforts, we emphasize and underscore the tool's descriptive utility as well. The use of scientifically developed measures and models for predicting success do not preclude the continued use of subjectivity, traditional screening methods, and client preference in personnel selection, promotion, development, and/or placement decisions—even subjectivity which is informed by the measures themselves. Given adequate measurement properties (which we demonstrate earlier in this brief), nearly all psychometric-based assessments, regardless of whether and how they have been empirically validated for predictive use, have considerable descriptive utility and tap constructs that may or may not be elucidated with traditional screening methods. As such, the added value associated with psychometric-based measures involves the results of respondent profiles and their descriptive utility as well, viz., what they suggest in terms of one's social, cognitive, and emotional tendencies in general, regardless of criterion-related issues and target scores that are calibrated using criterion-related data and job specification variables.

Psychometric-based assessments add demonstrable value for personnel decisions, and their continued and increasing use among human resources departments, personnel search organizations, and personnel development firms is, as such, for good reason (Tett, Jackson, & Rothstein, 1991; Scroggins, Thomas, & Morris, 2008; Thomas & Scroggins, 2006; Lombardi, 2011). Nonetheless, the diverse nature of workplace roles, job demands, organizational and national cultures, and the challenges of applied research make identifying and employing predictive measures for workplace success increasingly complex. As such, traditional measures and methods will and should maintain a stable presence in the process of identifying candidates for job vacancies and promotional opportunities—and for good reason. These include things like resume and reference checks, experience, education, skills, interviews, referrals, and subjective notions of fit on diverse variables among key organizational players and decision makers. Among applicant pools and existing personnel who may be targeted for hiring and/or promotion, these “hard fit” variables no doubt contribute to a very large portion of the (often unmeasured) variability in who will ultimately succeed in a job across key outcomes. The use of formal psychometric-based assessments—including measures of personality, problem-solving style, cognitive processing, emotional tendencies, social behavior, career motives, and others—has also played a significant role in personnel research and selection and shows strong indications of increasing in popularity (Kristof-Brown, Zimmerman, & Johnson, 2005). For executive search in particular, we believe and emphasize that the increasing popularity of formal psychometric-based assessments adds value to the extent they are used in supplementary ways and necessarily in conjunction with more traditional and experience-based practices and not as replacements of them.



## References

- Brown, A., & Maydeu-Olivares, A. (2011). Item response modeling of forced-choice questionnaires. *Educational and Psychological Measurement, 71*(3), 460-502.
- Cameron, K. S., & Quinn, R. E. (2006). *Diagnosing and changing organizational culture: Based on the competing values framework* (Revised ed.). San Francisco, CA: Jossey-Bass.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hough, L. M., Oswald, F. L., & Ployhart, R. E. (2001). Determinants, detection and amelioration of adverse impact in personnel selection procedures: Issues, evidence and lessons learned. *International Journal of Selection and Assessment, 9*(1-2), 152-194.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58*, 281-342.
- Lewis, J., Goff, M., Jones, J., Hezlett, S., Tang, K., Dai, G., D'Mello, S., et.al. (2015). Korn Ferry's Four Dimensional Executive Assessment research guide and technical manual. Los Angeles, CA: Korn Ferry Institute.
- Lombardi, M. (2011). *Assessments 2011: Selecting and development for the future*. Boston, MA: Aberdeen Group.
- Lombardo, M. M., & Eichinger, R. W. (2009). *FYI® for your improvement: A guide for development and coaching* (5th ed.) Minneapolis, MN: Korn Ferry International.
- Scroggins, W. A., Thomas, S. L., & Morris, J. A. (2008). Psychological testing in personnel selection, Part I: A century of psychological testing. *Public Personnel Management, 37*(1), 99-109.
- Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personnel Psychology, 44*, 703-742.
- Thomas, S., & Scroggins, W. (2006). Psychological testing in personnel selection: Contemporary issues in cognitive ability and personality testing. *Journal of Business Inquiry, 5*, 28-38.
- Tropman, J., & Wooten, L. P. (2013). The 7C approach to conceptualizing administration: Executive leadership in the 21st century. *Administration in Social Work, 37*(4), 325-328.
- Zes, D., Lewis, J., & Landis, D. (2015). Package KCIRT: k-Cube Thurstonian IRT Models. Available at: <https://cran.r-project.org/web/packages/kcirt/kcirt.pdf>

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