Pharmaceutical & Biotech Top-Performing Physician Leader Analysis

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Background

There is a long history of research addressing the relationship between personality and effective leadership in organizations (e.g., Judge, Bono, Ilies, & Gerhardt, 2002; Hambrick & Mason, 1984; House, Spangler, & Woyche, 1991). Compelling evidence has emerged from a number of recent studies that suggest personality is a strong indicator of the types of individuals who ascend to executive levels and that personality helps explain how these individuals lead their organizations once they are established in these positions (Resick, Whitman, Weingarden, & Hiller, 2009). In recent years, Caliper has conducted a number of studies that investigated the relationship between effective leadership and personality traits. One such study included a sample of 293 successful corporate leaders across multiple industries. The findings suggested a very distinct model of executive level leadership personality. In general, this group of successful leaders exhibited dynamics that are consistent with being adept at influencing and directing others, skillful at building relationships and masterful at solving problems and making decisions. In essence, these leaders were extremely bright, assertive, driven to persuade, empathic and resilient. Having a need to get things accomplished, they are willing to take risks. They are also moderately sociable, demonstrating a healthy level of skepticism, and are motivated to come up with new ideas.

In another leadership-related study, Caliper (2005) conducted research on the unique personality traits of successful women leaders. Among the findings from this study of 59 successful women leaders were that women leaders score significantly higher than male leaders in ego-drive (persuasive motivation), assertiveness, willingness to risk, empathy, urgency, flexibility and sociability. The strong people skills possessed by women leaders enable them to read situations accurately and take in information from all sides. This willingness to see all sides of a situation enhances their persuasive ability. They can zero in on someone’s objections or concerns, weigh them appropriately, address them effectively and incorporate them into the grander scheme of things when appropriate. These women leaders are able to bring others around to their point of view or alter their own point of view—
depending upon the circumstances and information they uncover. They can do this because they genuinely understand and care about where others are coming from. This allows them to come at a subject from their audience’s perspective, so that the people they are leading feel more understood, supported and valued.

In conjunction with Caliper, Amrop Battalia Winston has conducted a study to understand the leadership profile of top physicians in the pharmaceutical and biotechnology industry. The purpose of this research is to identify if there are particular personality traits in these physicians that lead to behaviors that are consistent across the industry that demonstrate success. These personality traits can also potentially link into competencies already developed by individual organizations regarding their unique leadership definitions.

**Method**

**Use of the Caliper Assessment**

The Caliper Profile is a robust assessment tool that measures 23 different personality traits and motivational factors that have been found to be highly predictive of job performance. In working with over 30,000 companies over the past 40 years, Caliper has consistently found that the employees who perform at high levels are those who are in work environments and positions that are congruent with their personality and motivational strengths.

One’s personality and set of motivational dynamics provides the psychological mechanism that gives rise to the observable behaviors that will lead to success in a job. In short, Caliper assesses the congruence between an individual’s personality and the tasks, work environment, management style, culture, and expected outcomes the individual will experience on the job. The more congruency observed, the more likely the individual will prove to be a success.

**Analysis of Pharmaceutical and Biotech Top Leadership Composite**

Sixty-seven individuals, deemed by their respective companies or Amrop Battalia Winston as being successful or high-potential physician leaders, were identified as potential participants of this study. To help guide the identification and selection of potential study participants, we have defined high performance as a leader within the context of the following job-related behaviors listed by Caliper and Amrop Battalia Winston.

**These include:**

1. Confidently expressing ideas and opinions
2. Motivating others to perform at their best
3. Building alignment and influencing others from various functional areas
4. Recognizing problems, issues and opportunities
5. Thinking strategically to promote growth, process improvement or in the attempt of gaining competitive advantage
6. Implementing problem-solving strategies
7. Taking action that challenges status quo
8. Willing to make tough decisions
9. Being persistent
The study participants come from a number of organizations within the pharmaceutical and biotech industries, including such companies as:

- Amgen Inc.
- Bristol-Myers Squibb
- Johnson & Johnson
- Merck & Co.
- Merck Serono
- Novartis Pharmaceuticals
- Sanofi-Aventis Pharmaceuticals
- Boehringer-Ingelheim Pharmaceuticals
- GlaxoSmithKline
- AstraZeneca International
- Wyeth Pharmaceuticals
- NovoNordisk Inc.
- Pfizer
- Roche Pharmaceuticals

The positions held by these individuals represent functional areas where physicians typically are employed, (i.e. Clinical Research, Medical Affairs, etc.) in the pharmaceutical and biotech industry, and included such titles as:

- Senior Director
- Assistant/Associate Vice President
- Therapeutic Head
- Executive Director
- Vice President
- Chief Medical Officer

Each of the 67 potential participants was provided an explanation of the study goals and was asked to participate. Each later received an email requesting him/her to complete the Caliper Profile assessment. The email sent contained an electronic link that brought the participant to a secure website to complete the assessment on-line. While administration of the Caliper Profile is not timed, time to complete is approximately 75 to 90 minutes. At the end of the data collection phase of this study, 39 of the 67 had completed the Caliper Profile. These 39 individuals served as the final study sample.

Results

Caliper Personality and Cognitive Results

Included at the end of this report (in Appendix A) is a glossary of Caliper terms which includes definitions of the personality and cognitive traits measured by the Caliper Profile. Raw scores were used for all data analyses. All raw scores were averaged, and these averages were converted to percentiles based upon US norms for purposes of illustration and interpretation of results.

The bars on the graphs represent a half standard deviation from the mean of the group on each trait. Given that the 50% mark (50th percentile) is the average of the general population for each attribute, the mean scores that fell well above, or below, 50% are attributes that warrant consideration because they deviate most from the general population. Moreover, in looking at all the bars on the graph, wider bars indicate a greater degree of variance between the scores of the members of the group, whereas narrower bars indicate a lesser degree of variance between the individual scores. Therefore, Caliper scales with the narrowest bars are those for which the members of the group are similar. Traits with a relatively large amount of variance within the same group (indicated by wider bars) may not be as critical.
As can be seen in Figure 1, this group of successful physician leaders scored above average in:

- Assertiveness
- Ego Drive
- Urgency
- Idea Orientation
- Aggressiveness
- Risk Taking
- Abstract Reasoning

This group scored below average in:

- Cautiousness
- Accommodation
- Skepticism
- Thoroughness
- Self-Structure
- External Structure

Summary of Personality Dynamics

Leadership

The dynamics exhibited by this group of successful physician leaders suggest that they are comfortable and effective in situations that call for a straightforward communication style. They are apt to be highly assertive in communicating their ideas and in championing their opinions. They will tend to defend their decisions and opinions in circumstances when faced with resistance from staff, colleagues, etc. They should be effective in clearly conveying performance expectations to others and will generally be comfortable taking a leadership role in situations in which they need to be direct in addressing performance issues. While not welcoming of conflict, they will nevertheless be willing to engage in difficult or uncomfortable conversations, as situations dictate. They exhibit a moderate level of backup Aggressiveness, which suggests that they will usually be willing to bring a constructive emotional element to the interaction/discussion when faced with pushback or resistance. These dynamics also suggest that they are highly motivated to win buy in from others. Members of this group, therefore, should be highly effective in communicating the company’s vision, direction, and goals clearly in ways that are compelling and easily understood. Taken together, these dynamics should serve them well in inspiring confidence and engagement from their teams and the larger organization. Their higher levels of Risk-Taking and Urgency suggest that they will be biased more toward action than deliberation, and that they are probably perceived as strong, decisive leaders. While this tendency toward action should make them rather results oriented, this need for action coupled with a lower level of Cautiousness suggests that they may miss some opportunities to think through and consider potential consequences and alternative courses before being moved to action.

Interpersonal

On the whole, the members of this leadership group seem cordial, but not necessarily focused on taking the social initiative in every circumstance. They can establish a basic rapport and are apt to be fairly aware of others’ needs, concerns, and reactions. However, they may often use this information more for work-related and problem-solving purposes than as a means of really trying to get to know people on an individualized basis. The members of this group are apt to be much more goal focused than relationship focused. This is highly consistent with research.
findings that suggest effective managers are less accommodating and are not afraid to anger a person or two in the interest of getting goals accomplished. Since these individuals may not be highly motivated by the “thank you” or necessarily be focused on winning others’ approval, they might be selectively accommodating or prone to waiting until their help is sought out.

Problem Solving/Decision
Making This group of successful physician leaders exhibits a very strong ability to see patterns in data/information, recognize cause and effect relationships, and to apply previous learning and experience to solve new problems in differing contexts. This should allow them to quickly see how new ideas can be integrated into the business model. They demonstrate strong potential to assimilate complex information quickly, to recognize key issues to be addressed, and to understand how one problem impacts another. That is, they should be adept at analyzing trends in the business environment and leverage that information to generate innovative solutions and target change initiatives. They are likely to tap into outside information sources to expand the scope and range of their analyses and should have a good “pulse” on core issues. Their strong conceptual thinking and abstract reasoning ability, coupled with a high degree of risk proclivity, suggests that they will often create opportunities for their companies by challenging conventional thinking and perceived wisdom. They will often champion innovative projects, and will be willing to defend initiatives in the face of resistance. While this group has strong dynamics related to strategic planning, creative problem solving, and initiating positive change, they also exhibit a rather low level of detail orientation. That is, this group may not take personal ownership of project plans and the overall quality of work produced, especially for projects or tasks that they do not consider to be high priorities.

Personal Organization/Time Management
The dynamics exhibited by this group of successful physician leaders suggest that they are able to juggle concurrent priorities. That is, they appear to be more comfortable multi-tasking and dealing with a wide range of issues, rather than focusing deeply on any single problem or issue. While these leaders may tend to multi-task and push themselves to get a lot done, they may struggle in determining key or in what order they should complete various activities, and may often be distractible. Their high levels of Risk-Taking and Urgency, coupled with low levels of Cautiousness and Thoroughness, suggest that this group will be very results oriented, and biased toward quick action rather than excessive deliberation. This group is apt to have a higher than average comfort level in ambiguous or ill-defined situations. However, these same dynamics make them less likely to thrive in highly structured, closely managed work environments.
Conclusion
The goal of this study is to gain a deeper understanding of what traits are most relevant to, and support successful leadership behaviors for an industry physician. These data reflect a clear omnibus model of personal attributes that are most related to physician leadership success in the industry. A comparison of job candidates’ personality dynamics to this model of success, along with consideration of role-specific, company, and culture-fit factors, will result in more accurate assessment of job fit, professional development needs, and overall potential for success. This information provides the industry as a whole with data to improve selection, on-boarding, retention and development of their physician population.
References
Caliper Corporation (2005). The qualities that distinguish women leaders.


Appendix: Glossary of Terms

Abstract Reasoning: Potential to solve problems and understand the logical relationships among concepts. People who show a high level of Abstract Reasoning should be capable of understanding complex issues and integrating information. Individuals with low levels tend to be most effective when handling issues that have straightforward solutions.

Accommodation: Desire to help others. Individuals who have high scores on this trait tend to be motivated to help people. Those with low scores might be uninterested in providing assistance. In certain Job Families, Accommodation can be a Performance Inhibitor. In such cases, people who are highly accommodating are apt to be motivated to assist others, which may detract from fulfilling position requirements. Individuals with low scores are unlikely to let the need to help people interfere with their job performance.

Aggressiveness: Inclination to push forcefully. People who have high scores in Aggressiveness tend to be forceful when defending their ideas or actions. Individuals with low scores would be unlikely to take a firm approach.

Assertiveness: Potential to communicate information and ideas in a direct manner. Individuals scoring high on this quality should be willing to communicate their ideas and opinions. People with low Assertiveness scores may be uncomfortable expressing their viewpoints.

Cautiousness: Inclination to make decisions carefully and think through relevant facts and alternatives. High scorers tend to be careful when deliberating options and calculating outcomes. By contrast, low scores on this attribute suggest a tendency to act without thinking things through.

Composite: A composite refers to statistical analyses that are performed on a sample of Caliper scores on no less than five individuals. Specifically, the mean and variability are calculated for each trait measured by Caliper. The results of these analyses, which are performed on Caliper raw scores, are converted to percentiles for purposes of graphic illustration and interpretation. A composite can be performed on the scores of individuals with different job titles, and at different performance levels on the same job. Because performance metrics are not used to define or characterize the sample of individuals in the composite, a composite should not be confused with the results of a Caliper Benchmark and Validation Study. Its value lies in presenting a snapshot of the Caliper results of a group of individuals in a particular sample.

Ego-Drive: Degree of satisfaction gained from persuading others. Highly ego-driven individuals should be motivated to win others’ commitment. People with low scores on this trait are unlikely to invest much effort into gaining consensus. According to Caliper’s Performance Models, Ego- Drive can sometimes inhibit performance. In those Job Families, individuals with strong Ego Drive could overemphasize gaining people’s agreement at the expense of accomplishing work.
goals. Those with low scores would be unlikely to allow the need to convince others to interfere with their job performance.

**Ego-Strength/Resilience:** Capacity to handle rejection and criticism. Individuals with high scores on Ego-Strength tend to be unconcerned by setbacks. On the other hand, people who score low on this scale may be sensitive to criticism or rejection.

**Empathy:** Potential to perceive others’ feelings and to adapt as needed. An empathic individual should be capable of understanding others and adjusting accordingly. Low scorers are inclined to misinterpret people’s needs or feelings.

**External Structure:** Degree to which a person is sensitive to existing rules. Individuals who show a high level of External Structure are likely to be receptive to a structured environment with rules. People with low scores could be unresponsive to authority. Caliper’s research shows that high scores in External Structure can derail performance in certain Job Families. In such cases, high scorers are apt to allow following rules to detract from achieving objectives. By contrast, low scorers are unlikely to let rules interfere with accomplishing work goals.

**Flexibility:** Willingness to modify an approach and to adapt to changing circumstances. Individuals who score high on this measure should be adaptable to change. Those who show low scores are likely to be reluctant to change their approach.

**Gregariousness:** Comfort with meeting new people and initiating conversations. Highly gregarious people would likely be comfortable establishing contact and networking. Those who have low scores on this trait may be uneasy about taking the initiative in social situations. Caliper’s Performance Models indicate that Gregariousness can hinder performance in some Job Families. When this trait is a Performance Inhibitor, people with high scores could be motivated to network, which may detract from fulfilling position requirements. By contrast low scorers are unlikely to let the desire to meet people interfere with job performance.

**Idea Orientation:** Preference for thinking creatively and generating new ways to solve problems. Individuals with high Idea Orientation are likely to be motivated to develop creative, original solutions, while low scorers are inclined to use well-established methods. In certain Job Families, high Idea Orientation can inhibit performance. In these Job Families, people who show high scores are apt to be distracted by their need to generate new ideas. Those with low scores are unlikely to allow the desire to innovate to become a disruption.

**N:** The total number of scores, or values, in a sample (or population).

**Percentile:** A value indicating the percentage of cases falling at or below that score. For example, the 50th percentile indicates that half of the scores fell at or below that score.
Population (N): Consists of all members of a group of individuals who are alike on at least one specified characteristic. For example, all employees at Company XYZ are the population of employees at Company XYZ.

Risk Taking: Willingness to take chances. Individuals scoring high on this trait are likely to take chances on untested initiatives. People with low scores tend to be reluctant to risk failure.

SD (standard deviation): Measures the spread or dispersion of scores around the mean in a distribution of scores (sample or population). The larger the standard deviation, the more the scores in the distribution vary around the mean. The smaller the standard deviation, the less the scores vary around the mean.

Self-Structure: Preference for independently determining work methods. Individuals with high scores are apt to be motivated to independently determine their work approach, while those who show low Self-Structure scores are unlikely to define their own work methods.

Skepticism: Inclination to doubt or question others’ motives. Caliper’s research has shown that this trait is a Performance Inhibitor in some Job Families. Highly skeptical individuals tend to be guarded and wary of others’ intentions. People with low levels on this scale are likely to be trusting and willing to give others the benefit of the doubt.

Sociability: The enjoyment of being around people and working with others. Individuals who score high on Sociability are likely to be motivated to interact with others. Low scorers on this trait could be uninterested in having frequent social interaction. Caliper’s Performance Models show that Sociability can detract from job performance in some Job Families. In those circumstances, a highly sociable person would be apt to socialize with others, perhaps at the expense of producing results, while those with low scores would be unlikely to allow socializing to become a distraction.

Thoroughness: The tendency to pay attention to detail. Individuals who show high scores on this trait tend to be attentive when handling detail-intensive tasks. Those who score low may be uninterested in focusing on fine points.

Urgency: The tendency to take quick action in order to obtain immediate results. High scorers on this trait tend to be driven to act quickly. Individuals with low levels of Urgency are inclined to take time when handling tasks.
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