

TALENT OPTIMIZATION



Predicting Performance through Analytics

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Introduction

Today, due to powerful changes in United States workforce demographics, people are in short supply. There are more job openings than workers to fill them. People with very specific skills, traits and aptitudes are in even shorter supply. Talent optimization has become an imperative to create and sustain any viable business. Finding the success profile for each role in a business goes a long way competing for talent, retaining your best employees and building your distinctive corporate culture.

Urgent Justification

Shortage of Talent: Each day across the country, thousands of experienced employees retire from full-time employment or retreat from the workforce entirely. Younger generations are less numerous. Workers from other countries frequently experience a prolonged cultural learning curve. Full assimilation into American society takes decades. At the same time, advancing technologies require more complex human competency and collaboration. Individuals possessing valuable skills, higher cognitive abilities, productive behavioral traits and a conscientious work ethic are precious commodities. They are gold, the source of true wealth.

Selection Inaccuracy: Since employee payroll is typically 50% to 70% of a business' overhead costs, personnel selection mistakes are a financial nightmare. Hiring too many external candidates in an established business deflates the morale of current employees. Retention suffers. Promoting the wrong person into a role that demands greater responsibility, squanders the employee's usefulness to the firm, disrupts managerial effectiveness and likely leads to a disgruntled collaborator joining the competition.

Deficient Development: If selection procedures are sub-par, development of incumbents is unlikely to move the needle on performance and retention in the right direction. Training and development build upon each employee's existing qualities and inclinations. Certainly, they are no substitute for having the wrong person in a workplace role. No combination of courses, coaching or coaxing can overcome the fact that Sally is bored to tears as a telemarketer while Stanley keeps tinkering with tools when he should be writing that urgent competitive product review before the next board meeting. Understanding and then profiling what it takes to be successful in a position is not a luxury. Who said ignorance is bliss?

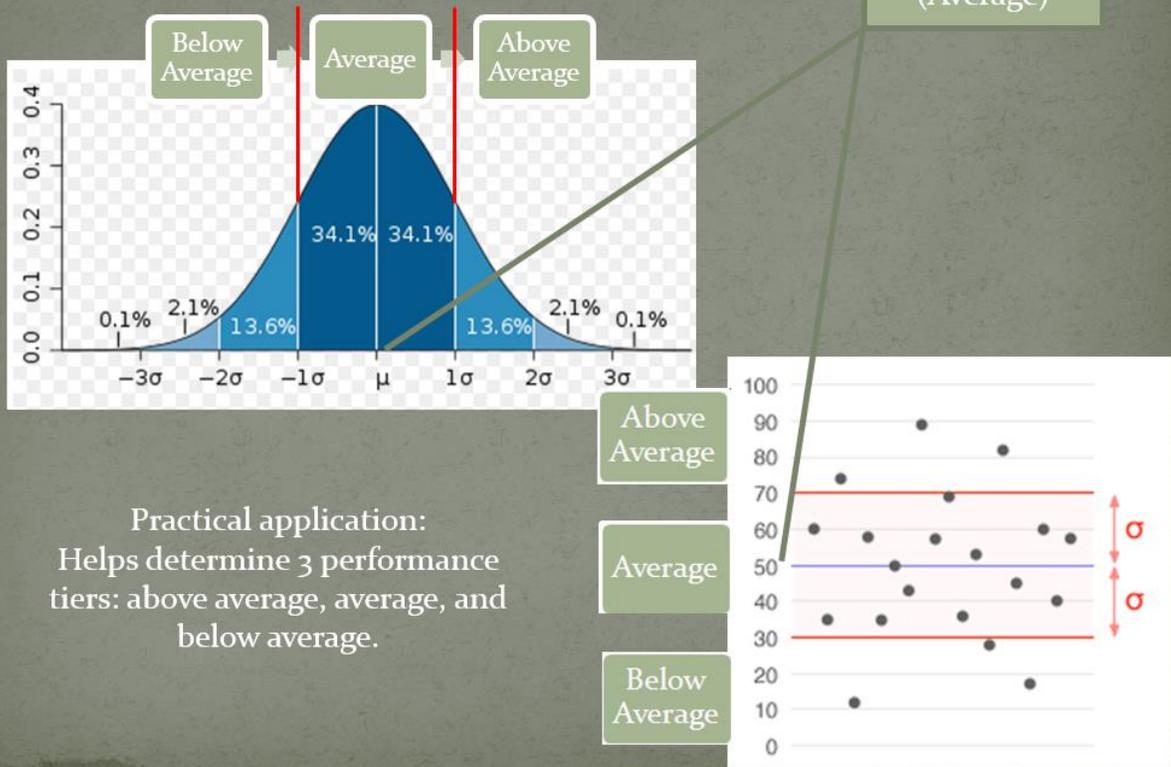
Dancing with Data: Our daily lives are becoming more intertwined with data. Machine logs, sensor logs, email logs continue accumulating information. Activity on the web, app use on our smart devices, transmitters in our appliances all generate digital records. At the office, employees interact with powerful Customer Relationship Management (CRM) databases, Learning Management Systems (LMS), Enterprise Resource Planning (ERP) software in the cloud that consolidates e-commerce, sales, accounting, corporate performance and governance as well as other core business functions. All these workplace data repositories and the warehousing of these data contains countless useful, game-changing insights regarding the people whom our business depends upon. Becoming a tech-savvy company requires strategic vision, energy and follow-through. From a data mining perspective, have we stepped away from the wall, embraced our “data” partner and swung to the music?

Reducing Variability: On any sailboat that consistently wins regattas, the sailors know what to do, when to do it and how each task should be done. Trimming the sails to perfection at just the right tact propels the boat to maximum velocity. Each gust of wind seen crossing the water is captured efficiently. The captain instructs crew members to return to the correct positions in the boat and hike out over the waves counterbalancing nature’s forces. This is when the small vessel’s centerboard begins to hum. The bow slightly elevates out of the water and the racing machine overtakes its competition. Within a commercial enterprise, if there are large differences between important employee performance metrics such as sales closing ratios and client satisfaction ratings, company momentum can be lost. The corporate ship might not reach safe harbor before an approaching storm. Reducing variability in employee productivity is the way to create reliable revenue. There are enough external

factors in business not under one’s control. When that which we could control goes unattended or neglected, sails flutter idly in the wind.

Avoiding Average: Average employee performance is not our friend. In unskilled positions, the difference between being average and above average is roughly 40% of mean annual compensation. In a skilled worker, the gap between average and above average is about 60% of mean annual compensation. In a professional or managerial role, this same difference—one standard deviation—is worth circa 80%. For sales and business development positions, the discrepancy between performing at the 50th percentile and at the 84th percentile (that is, the gap between average and above average) typically is valued more than 100% of mean annual compensation. Whenever you hire or promote someone who becomes an average performer, you are losing a lot of capital due to inaccurate selection procedures. In the sad event that you hire/promote/select a below-average performer, just double your losses.

Standard Deviation



Source: https://upload.wikimedia.org/wikipedia/commons/thumb/8/8c/Standard_deviation_diagram.svg/1200px-Standard_deviation_diagram.svg.png

Talent Optimization Methodology

A method means a road. A methodology is the study of taking roads. An optimization methodology means finding the best road to where you want to go. When applied to talent, we are talking about a consistent process of finding the best people for every position in our business. The advent of powerful optimization, simulation and data mining technology in the hands of experienced workforce analysts makes this all possible.

In the following pages, we will describe four steps. The size and maturity of the business undergoing talent optimization requires prudent adaptation of this methodology. Nevertheless, the basic principles of what needs to happen will always be the same.

Step 1 (Build a Team): Identify an internal team of three to six empowered business leaders that will service as the talent optimization committee (TOC). Members of this team should be leaders tasked with client-facing, revenue-generating departments or divisions such as Business Development, Customer Service and Marketing. In general, TOC members should have profit and loss (P&L) responsibilities within the business. Human Resources and IT also should be present at the table to foster compliance and technical know-how. The Chief Financial Officer might not attend every meeting but should be debriefed frequently on the TOC's progress.

One member should be designated as the "committee head." Another member should be designated as the "Key Performance Indicator (KPI) coordinator."

Step 2 (Collect Performance Data): The "committee head" facilitates the collection of job descriptions for each position in the company as well as the organizational chart of roles and relationships within the business. Career path information for any combination of roles within each division or department are to be noted.

At this point, the "KPI coordinator" in collaboration with Finance Leadership and Chief Divisional Managers collects Key Performance Indicators (KPIs) for each job description. A Master Employee Performance Document (MEPD) is created containing: 1) job titles, 2) job descriptions, 3) job-related KPIs and 4) compensation ranges and, 5) any career paths with multiple levels to a role or common promotional paths to management. For example, there may be an entry-level, intermediate and advanced level to some roles. The "committee head" will retain the original MEPD along with an updated version of the organizational chart. The "KPI coordinator" will work with the CFO and Chief Divisional Managers to identify all sources of employee performance information in the business (both more "objective" metrics and more "subjective" information such as appraisal ratings and performance reviews).

A valuable source of important information typically arises within quarterly, semi-annual or annual employee compensation meetings with the Finance Division. Criteria used to promote employees to a higher level, to grant bonuses, to redeploy employees, to separate employees due to lack of performance are important sources of information at this second step.

Step 3 (Collect Assessment Results): The TOC member who is from Human Resources, Recruiting or Training & Development will document what worker psychological characteristics are being measured through workplace assessments, if any, that have been

administered to employees in recent years. A brief document is prepared describing these assessment tools, the current relationship with the vendor, the purpose of using the tools, accessibility to assessment results in hard copy or electronic form.

A similar audit of multi-rater feedback surveys often called leadership surveys, sales surveys, customer service surveys and the like are audited. They can be configured as 360-degree, 270-degree, 180-degree or 90-degree (self) surveys. The ratings give an important glimpse into the frequency with which critical skills and competencies are being exhibited in the business. They aid developmental work, but also contain important evidence about employee performance.

A printout of major employee features captured in the Human Resource Information System (HRIS), Talent Management System (TMS), Performance Management System (PMS), Learning Management System (LMS) and any other repository for important employee-related information is audited. A summary of the types of information being captured and their possible usefulness for data mining is documented.

If the business has not used pre-hire, psychological (industrial/organizational, not clinical) workplace assessments in the past as support for selection decisions, it is highly recommended that a reliable one suited for optimizing talent is adopted and implemented without delay. Ideally, every employee in the business should have taken the same Assessment.

One additional source of valuable information comes from other pre-hire screening steps. These are how the business collects job applications, reviews candidate resumes,

conducts phone screening calls, and prepares hiring managers for face-to-face interviews with internal and external job candidates. What type of documentation of findings goes on during this process? Finally, what is the process for selecting participants for training and development courses conducted by internal or external instructors?

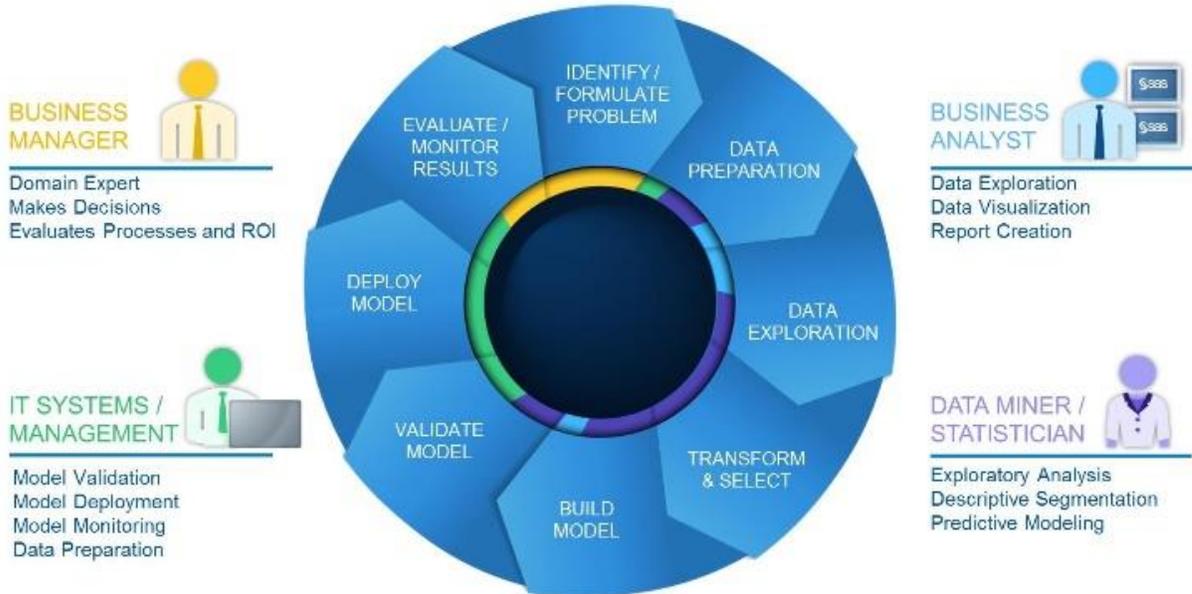
Step 4 (Crunching the Numbers): Kunze Analytics dedicates expertise to assist in retrieving and consolidating information mentioned in Steps 2 and 3 from the business' databases.

Kunze Analytics conducts data mining of these consolidated sources of information in order to discover important talent insights for every role in the business.

Analysis produces a success pattern for each role in the business using standardized measurements of worker psychological characteristics. Job matching takes place. Additional analyses and statistical modeling are conducted.

Step 5 (Validation Lifecycle): On an annual basis, Kunze Analytics typically collaborates with their client in a review of all baseline Assessment and Data Mining models created during the initial consulting engagement. Any new or baseline model represents a type of concurrent validity. Models only achieve predictive validity until after 12, 18 or 24 months of usage when subsequent analysis with the latest performance metrics testifies to their accuracy and value. Significant changes to management, KPIs, roles also warrant model reviews. A mature model might be in place for three (3) to five (5) years. During this time, evidence is collected periodically for or against its modification.

THE PREDICTIVE ANALYTICS LIFECYCLE



Source: <https://cdn.edureka.co/blog/wpcontent/uploads/2015/09/Predictive-analytics-lifecycle.png>

Talent Optimization Results

Role-based Results: Talent optimization is designed to increase quality of hire scientifically. The utility formula used to estimate added value has been accepted by Assessment industry experts, published in numerous university textbooks, and explained succinctly in the *Wiley Encyclopedia of Management (2014)*. Calculations below include 2018 role-based median compensation in the State of Wisconsin. Considering the Health Science career cluster, the typical range for results per \$1 spent on talent optimization is between \$11 and \$35 for Biomedical Engineers. The typical range for results per \$1 spent on talent optimization is between \$15 and \$48 for Sales Representatives and between \$20 and \$62 for Sales Managers.

Leadership-based Results: Talent optimization allows team leaders, supervisors and managers to coach their direct reports using gap analysis reports that have been monetized. Gaps are prioritized according to statistical measures so that each employee works to modify behavior that really matters. Assessment results correlate with the Key Performance Indicators (KPIs) tied to each business role. When leadership decides whom to promote to a higher level in the business, they have at their disposal the appropriate success pattern produced by talent optimization.

Legacy-based Results: Talent optimization accrues value not only during the first year of employment but during the lifecycle of each hired or promoted employee. If the average tenure for a role is 3.5 years, total average value is calculated to be \$1,043,663 for 20 Biomedical Engineers, \$1,415,634 for 20 Sales Representatives and \$1,831,279 for 20 Sales Managers.

Managing with Workforce Analytics

Better Together: People who have many years of experience in business develop unique insights into what success looks like. A former Professor within the University of Wisconsin System and subsequent Chancellor of Capella University Dr. Michael J. Offerman worked with a data scientist years ago. In an interview, Dr. Offerman states: *By applying some assumptions and developing an algorithm, he was able to come up with a run of data that would have been in a 90-plus percent predictive position. In other words, more than 90 percent of the time he could predict what happened to somebody based upon looking at these behaviors that we identified as being the critical variables.* This critical information allowed interventions by school counsellors and staff to aid those individuals in danger of not obtaining an ROI for their personal, economic, academic and career investments.

Workforce Analytics: Bersin by Deloitte defines workforce analytics as a combination of software and methodology that applies statistical models to worker-related data, allowing enterprise leaders to optimize human resources management (HRM). In the book *Human Capital Analytics: How to Harness the Potential of Your Organization's Greatest Assets* (2013) by Gene Peasy, Boyce Byerly and Jac Fitz-enz one reads: *Statistics are about how groups of people are likely to perform, not a judgment on individuals.* Because of this, when people in the workforce are stressed out daily because they feel the need to “be a different person” at the office, employers who optimize talent are able to find that position within their business which most closely suits each employee’s natural talents, abilities and inclinations. There’s no need to

judge anyone. Diversity is the spice of life, but also a business necessity.

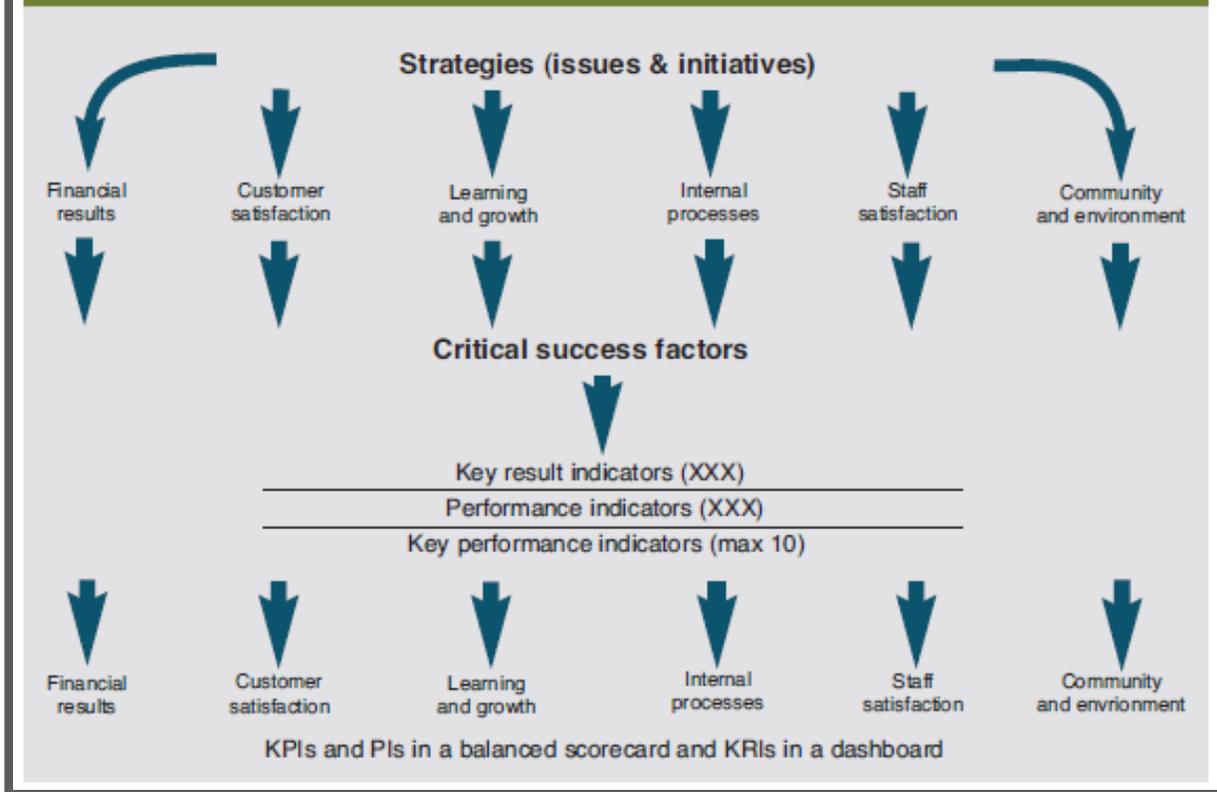
Money Ball: In a book by Brian Becker, Mark Huselid, and Richard Beatty called *The Differentiated Workforce: Transforming Talent into Strategic Impact* (2009), the authors mention the concept of a business acquiring analytical literacy. In Michael Lewis' book *Moneyball*, the author writes: *The [Oakland] A's [Baseball team] replaced the intuition and gut feel of traditional baseball decision making with objective evidence-based analysis of player performance.*

Statistical Analysis Value: Ian Ayres in his book *Super Crunchers* (2007) writes: *In 136 studies of the judgement accuracy of experienced managers, only 8 studies showed that the manager predictions were more accurate than simple regression equations applied to the same problems. In a post-study review, the analysts believed that random-sampling errors counted for the mistakes in the predictive power of statistics and that actually regression beat manager memory every time.*

Financial leans on the Non-Financial: (...) *today it is possible to argue that there are various functions in organizations and therefore financial performance is likely to be affected much more by non-financial processes. Hence, performance management has to be a structure containing both financial and non-financial criteria*—Wruck and Jensen (1998)— as quoted by Melek Eker & Fikri Pala in the *Journal of Economic and Social Research* (2008), *The Effect of Competition, Just In time Production and Total Quality Management on the use of Multiple Performance Measures: an Empirical Study.* Machine learning is a tool Managers have at their disposal to discover the what, where, how and why of these relationships.

4 Types of Indicators: Key result indicators (KRIs) tell you how you have done in a perspective or critical success factor (CSF). Result indicators (RIs) tell you what you have done. Performance indicators (PIs) tell you what to do. Key performance indicators (KPIs) tell you what to do to increase performance dramatically.

Figure 3 MISSION – VISION – VALUES

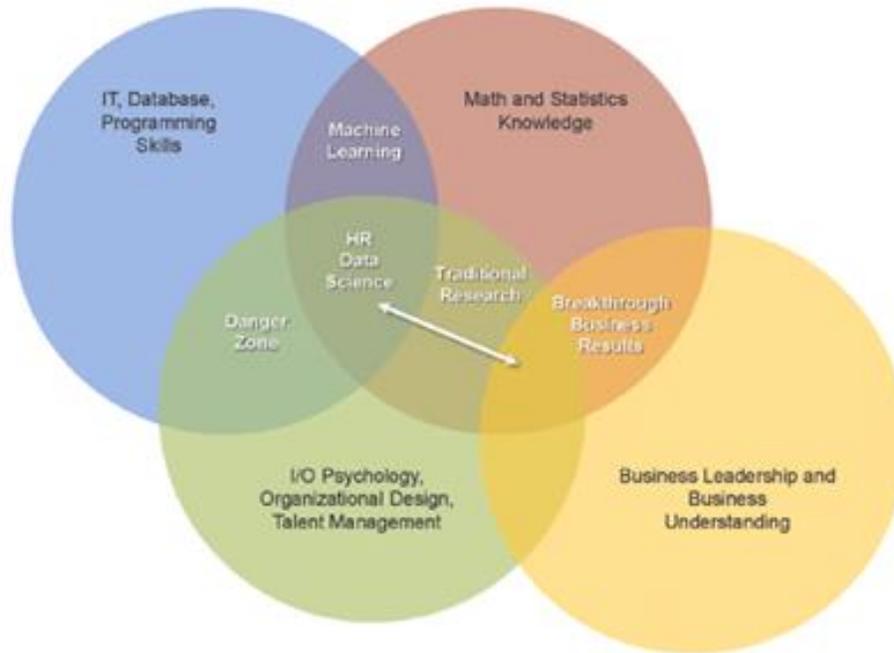


Source: <http://cdn.davidparmenter.com/files/2010/10/measuring-performance-in-a-recession.pdf>

7 KPI Characteristics: According to David Parmenter, these are: 1) Non-financial measures; 2) Measured frequently (24/7, daily or weekly); 3) Acted upon by the CEO & Senior Management Team; 4) Understood by all Staff who also know what corrective action may be

required; 5) They are the responsibility of a particular team; 6) Of significant individual impact, i.e. impacts more than one balanced scorecard perspective; and, 7) Encouraging of Appropriate Actions (does not lead to dysfunctional behavior).

Workforce Analytics Necessary Skills: Four overlapping domains create the intersection of HR Data Science, Traditional Research and, best of all, Breakthrough Business Results.



Source: Bersin by Deloitte (2012)

Predicting 9-Box Category with Predictive Data Mining: Each member of the workforce will be below target, on target or above target as related to performance and in the low, medium or high range on potential to assume more responsibility in the business. Excellent Managers adapt their content and coaching style based upon where their direct report is and where career momentum is taking that employee. There’s no excuse to treat direct reports with a one-size-fits-all approach to management. There are nine boxes below starting from box one in the bottom left-hand corner, moving from left to right, then up to the next level until ending at box nine in the upper right-hand corner of the table.

<p style="text-align: center;">High Professional / Enigma</p> <p style="text-align: center;">Noticed demonstrating high potential, has showed high potential in previous roles. May be in the wrong role.</p> <p style="text-align: center;">High Potential Below Target</p>	<p style="text-align: center;">High Professional / Growth Potential</p> <p style="text-align: center;">Capacity and/or capability for progression after further potential has been released. Reward, Recognize and Develop.</p> <p style="text-align: center;">High Potential On Target</p>	<p style="text-align: center;">Consistent Star / Future Leader</p> <p style="text-align: center;">Capability and/or ability for immediate advance, clear potential beyond current role. Top talent. Reward, Recognize, Develop and Promote.</p> <p style="text-align: center;">High Potential Above Target</p>
<p style="text-align: center;">Solid Professional / Quandary</p> <p style="text-align: center;">New in role / company, Novice. Test in new role. Has potential to improve performance. May not completely understand requirements of role.</p> <p style="text-align: center;">Medium Potential Below Target</p>	<p style="text-align: center;">Key Performer / Core Employee</p> <p style="text-align: center;">Developer, may have potential to do more through a lateral move or assume more responsibility. Needs to be tested to ensure capability is maximized.</p> <p style="text-align: center;">Medium Potential On Target</p>	<p style="text-align: center;">High Impact Performer / Future Star</p> <p style="text-align: center;">High performer, ready for additional challenges. Potential to perform in another role at a similar level using transferable skills.</p> <p style="text-align: center;">Medium Potential Above Target</p>
<p style="text-align: center;">Under Performer</p> <p style="text-align: center;">Risk performance issues. Not demonstrating any scope for improvement, has reached potential. Performance manage or exit?</p> <p style="text-align: center;">Low Potential Below Target</p>	<p style="text-align: center;">Inconsistent Performer / Future Core Employee</p> <p style="text-align: center;">Highly valued, possibly a specialist. Effective, keep them focused, engaged and motivated.</p> <p style="text-align: center;">Low Potential On Target</p>	<p style="text-align: center;">Diamond in the Rough / Trusted Professional</p> <p style="text-align: center;">High performer, hard to replace, possibly a specialist. Retain through reward and recognition.</p> <p style="text-align: center;">Low Potential Above Target</p>

Conclusion

Kunze Analytics provides clients with cutting-edge Data Mining capabilities. Together, their competency extends to ten practical domains necessary for discovering and reporting on game-changing business intelligence insights. These are: 1) Database systems, 2) Data warehouse, 3) Information retrieval, 4) Applications, 5) High-performance computing, 6) Algorithms, 7) Machine learning, 8) Pattern recognition, 9) Statistics, and 10) Visualization.

Contact Us

Business leaders hire us to help them optimize talent within their businesses. We have decades of experience working with every imaginable sort of data useful for predicting workforce productivity, retention, engagement, safety and a myriad of desired business outcomes. Give us a call so we can collaborate to *Predict and Increase Performance through Analytics*.



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