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Foreward
In July 2006 the first of many Workforce Intelligence Reports was published. The purpose of the reports is to identify the effects of human capital investments on the operating and financial results of an organization. The goal is to add credence to the proposition that investing in people creates value for the organization and ultimately shareholders. The research showed direct and indirect pathways linking human capital performance to business results.

KnowledgeAdvisors and their Human Capital Process Classification Scheme is taking the research a step further by making human capital measurement a part of human capital management. This white paper identifies a common lexicon for the processes that comprise talent management and human capital managed processes. Further, it articulates how measurement can lead to more effective management of such processes. Finally it identifies the benefits and risks and offers an action plan to get started in the measurement of these processes.

As human resources and learning and development managers continue to be challenged on the issue of expense versus investment, the Human Capital Process Classification Scheme identified in this body of work as well as it’s measurement models will be a valuable tool in the response to the claim that human capital is definitely an investment yielding significant shareholder value.

Jac Fitz-enz
Founder of Human Capital Source®
Founder of Workforce Intelligence Institute™
KnowledgeAdvisors Board Member
Purpose
The purpose of this paper is to provide an overview on the importance for measuring human capital-related business processes and to identify the specific processes that comprise human capital management. Further, a model and tools will be proposed along with benefits and risks of measuring human capital.

It is important to note that human capital encompasses learning and development and talent management among many other processes. It is also important to note that measurement of human capital processes is not synonymous with management of human capital processes.

Management is controlling, handling or directing the affairs of a business, institution, etc. Measurement is a method of determining effectiveness, impact, quantity, capacity or dimension.

This paper will explore how better measurement (through analytics) of human capital processes can significantly determine how successful an organization is in the management of those human capital processes.

Benefits of Measuring Human Capital Processes
There are several significant benefits associated with the measurement of human capital managed processes. The most significant include a series of strategic and tactical benefits:

Strategic:
• Catalyst for creating the high performance workforce that will increase productivity, quality and customer satisfaction while decreasing employee turnover, business risk, and cycle time
• Significant driver of financial results: increased revenue and decreased costs
• Key contributor to wealth creation / stakeholder value: market value exceeding book value

Tactical:
• Quickly identify gaps that exist in the management of the human capital process
• Ensure the management of the human capital process is functioning as designed
• Steer limited resources (financial, physical, human) toward improving the human capital process that needs it the most
• Improve outcome results of human capital processes (ex. analyzing exit interview data at a tactical and strategic level can result in less employee turnover and better recruiting processes)

In general, human capital processes should be reviewed on a continuous basis to ensure they are functioning as designed to achieve the aforementioned benefits. There are six primary drivers of process change that may cause human capital processes to become out of alignment. Through appropriate diagnostics and continuous measurement these six drivers of change can and will detect problems and mitigate their effects in a timely manner.

1. People Changes: Processes that have heavy turnover or turnover of key personnel or personnel no longer qualified for the skill or competency demanded of the role are at risk.

2. Process Changes: Processes that have organizational structure change or changes to the inputs that feed them, the activities (i.e. policies and procedures) within them or the outputs that produce are at risk.

3. Technology Changes: Processes that have changes to information technology systems are at risk.
4. Culture/Leadership Changes: Processes that have changes in the senior or executive management levels are at risk.

5. Measurement Changes: Processes that change the way the team or individual is measured in terms of performance are at risk.

6. External Changes: Changes outside of the process or organization including economic, political, regulatory, and competitive change are at risk.

Human Capital Analytics Defined
Human Capital Analytics is the process of measuring human capital processes from recruitment to retirement and all people management processes in between.

This definition means that Human Capital Analytics measures, not manages. It quantifies gaps in the management of existing processes to more precisely identify opportunities for improvement where limited financial, physical and human resources exist for improvement.

An example of this is the learning and development process, a component of the overall human capital process. A learning management system manages the day-to-day learning operation. Examples include registering attendees or tracking completions. A learning analytics system measures the outcomes of the day-to-day learning operation such as the effectiveness of the learning the attendees received or the impact the learning had on the job. By performing practical measurement the learning and development organization can identify what curricula are least effective and target their resources toward improving those versus others. Those improvements are then built back into the management process of learning and development.
Human Capital Process Classification Scheme

In 1992 several founding members of the American Productivity and Quality Center’s International Benchmarking Clearinghouse created a Universal Process Classification Scheme comprised of 13 core business processes and over 100 sub-processes that apply to almost any business regardless of geography, size, or industry. Within the framework is one titled Develop and Manage Human Resources.

Rather than create a new classification scheme, it is a best practice to leverage industry accepted models such as the Universal Process Classification Scheme. As such KnowledgeAdvisors has adapted this scheme in the creation of the Human Capital Process Classification Scheme.

1. Manage Deployment of Personnel
   a. Forecast Workforce Requirements
   b. Recruit, Select, and Hire
   c. Succession Planning
   d. International Assignment
   e. Mobile Workforce
   f. Employee Turnover

2. Manage Competencies and Performance
   a. Competency Management
   b. Performance Appraisal

3. Develop and Train Employees
   a. New Hire / On-boarding
   b. Learning and Development
   c. Coaching and Mentoring
   d. Leadership Development
   e. Knowledge Management

4. Motivate and Retain Employees
   a. Compensation and Benefits
   b. Employee Satisfaction
   c. Employee Engagement
   d. Work/Life Balance
   e. Workforce Diversity

The aforementioned 4 processes and related 18 sub-processes allow all organizations, regardless of geography, size or industry, to assess the completeness of their human capital management. It is from this mutually exclusive/collectively exhaustive framework that allows KnowledgeAdvisors to measure human capital managed processes.
Human Capital Measurement Process Flow
The illustration below highlights the flow in maximizing human capital from business strategy to wealth creation.

The process begins with a human resource executive understanding the business strategy. This is the driver of all future decisions. It ensures from the beginning that any human capital decisions will be aligned with the organizational business strategy.

After reviewing the business strategy, the human resource executive should build a workforce development plan. The plan should achieve the strategic business goals through the desired workforce.

The workforce must then be calibrated to achieve the workforce development plan. This is done through four major enablers who formulate the previously discussed Human Capital Process Classification Scheme: Manage Deployment of Personnel, Manage Competencies and Performance, Develop and Train Employees and Motivate and Retain Employees. There are sub-processes beneath these four major enablers and for each there are measurement tools in the form of templates, standards and technology to measure these processes to ensure they are successfully managed and achieving their intended purpose.

The direct results of solid human capital measurement are effectively managed processes that yield a high performance workforce. This is a workforce that has the following attributes when measured:
Increased Productivity
Increased Quality

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Increased Customer Satisfaction
Decreased Risk
Decreased Employee Turnover
Decreased Cycle Time

If these metrics are moving in the right direction the organization has achieved optimized business results. The most significant results tie to the financial statement, primarily the income statement. If measured the revenues have increased and the costs have decreased yielding higher margins.

The results of healthy financial performance produce the ultimate effect of human capital value: wealth creation. Wealth creation is increased stakeholder value. Stakeholders include the following:

Taxpayers (for public sector organizations)
Shareholders (for corporations)
Employees
Partners

The most obvious example is when the market value of a company exceeds its book value. This is the marketplace’s approval of successfully managed organizations, including human capital processes.

There is documented evidence that publicly traded organizations that optimally manage human capital processes will yield higher stock prices. In the published study The Impact of U.S. Firms Investments in Human Capital on Stock Prices. This research found a “super normal” return to a firm’s investment in human capital and in particular a firm’s training investments. The study cites quantifiable differences in the high performing workforce results cited above (productivity, quality, customer satisfaction, employee retention) and to financial results (sales). In addition the findings positively correlate the stock price of those organizations that made investments in human capital.
Human Capital Measurement Model & Tools
Measurement models and tools must support the Human Capital Process Classification Scheme. The models and tools allow for theory to be brought to reality and allow ideas to be brought to action.

First let’s discuss the model. Measurement is organized around data. There must be a model to administer for measurement to ensure it will function as designed. The main areas of emphasis for the measurement model are as follows:

1. Collection
2. Storage
3. Processing
4. Reporting
5. Analysis
6. Improvement

The key here is to recognize that some of these steps are administrative and ‘ready the data’ and do not add value. Those steps are collection, storage, processing, and reporting. No decisions have been made yet until one analyzes the data and makes improvements. The goal therefore in human capital analytics is to have the right tools to streamline the administrative aspects of measurement. Tools will be discussed shortly.

Collection of data is an essential first step. Data may be gathered through sources such as spreadsheets, databases, and feeder systems like an HRIS, LMS, or ERP. Further one can use evaluation systems, surveys, assessments, interviews, and focus groups as data inputs.

Storage of data is important as well. The goal is to store the human capital metrics in a centralized database. This is important in the processing power of the data originating from one source. It also mitigates risk of processing the wrong ‘version’ of data if it resides in multiple sources. Further, centralization of data is important in ensuring that the users of the information can begin to see the inter-relationships in the metrics not only within a process or sub-process in the Human Capital Process Classification Scheme but also between processes in the framework.

Processing of data can be time consuming and cumbersome. It is important to use some sophistication especially with large amounts of data. Online analytical processing (OLAP) tools allow for better “slicing and dicing” of data in a user friendly manner. The ability to quickly aggregate and drill down into the data is equally important.

Reporting of data should be self sufficient. It should allow users to generate their own custom reports for their own analysis. Standard reporting templates should be automated and online to allow for this self sufficiency.

Analysis of data should focus in three primary areas: 1) trends showcasing how the metrics are directionally moving, 2) goals to understand if the metrics are reaching desired levels of performance, and 3) benchmarks to glean insights against relevant points of internal or external reference.

Improvements should be made in a timely manner. Solid analysis will show the largest gaps in performance to make pinpointing improvement opportunities clear. Improvements should be classified into short, intermediate and long term improvements and should use classifications such as cost/benefit, risk, strategic vs. tactical in the thought process.

The tools that should be used throughout measurement will in no doubt be specific to the process within the framework. However a common theme should exist across them all. The three primary tools to which customized tools are created are the following:
1. Templates
2. Standards
3. Technology

Templates are structured tools that allow functional users assessing human capital processes with facilitated and consultative mechanisms to collect data. For example, a forecasting tool to determine the ROI on a leadership development program prior to program development can be determined through a well structured template.

Standards are critical to ensuring data is consistent and comparable. Anytime an evaluation, survey or assessment is used, the ability to start with a standard is important. Standards can exist in every human capital process in the process classification scheme noted above. For example if you desire to study employee turnover there may be a standard exit interview survey. This standard allows the organization to start with a credible starting point and add to it. Further it will likely have benchmarks surrounding it so there is a comparable element to it. Consistent data and comparable data through standards make the data more actionable for information decision making. Seek out standards when engaging in human capital analytics before building your own evaluations, tests, surveys, or assessments.

It is important to understand the uniqueness of each standard instrument:

Evaluation: This is a tool that measures the perception of a prior outcome. This is very common in learning and development. An end of class evaluation is done to determine the effectiveness and predicted impact of the learning in the eyes of the participants or their manager.

Test: This is a tool to more objectively measure knowledge or skill. This is common in learning and development and in competency management and certifications for workforce planning. A pre vs. post test may be used to measure increased in knowledge or skill.

Survey: This is a tool used to measure the respondent’s opinion of a stated circumstance. This is common in many areas of human capital. Examples include employee satisfaction and exit interviews.

Assessments: This is a tool that is used to measure perception of knowledge, skills, competencies or desired outcomes. This is common in competency management whereby a competency assessment may ask employees to rank their competencies in areas such as business or financial acumen.

Technology is important to minimizing administration burdens. There are many inexpensive tools that exist that can collect any type of survey data. There are also tools that are empty warehouses waiting to be filled with data from feeder systems. The key is to have the right technology that can compliment your human capital analytic business needs. Good technologies will provide for data collection that leverages standards when using evaluations, surveys, or assessments. It will also have templates for manual or automated data feeds from feeder systems such as Access databases, Excel files, HRIS systems, ERP systems or an LMS system. In addition, it allows the functional user performing basic and advanced human capital analytics to do so in a self-sufficient manner. This is commonly done through user friendly interfaces to query the data not only by the attributes of the human capital process but by the attributes of the human capital itself.

For example if we are measuring high employee turnover at a large retail environment we would start with a standard exit interview survey that can be collected across all stores. The data capture would be done via the Internet. The data is stored in a single repository. It can be queried or processed by items on the survey itself (reason for leaving, etc.) but also by the store location, the employee job level, the years of service etc. The data can be aggregated at the
region, district and overall company levels to look at trends. It can also be compared against internal and external benchmarks, goals, and trends. Finally and most importantly, the analysis of such data reported in this manner is fed back into the employee turnover process AND complimentary processes such as the recruitment process to improve the management of them.

**Risks Associated with Human Capital Measurement**

There are risks associated with human capital measurement. These include the following:

- **Data protection.** This is a serious risk. Collecting data about human resource information can run into legal risk. A way to mitigate this risk is by ensuring any vendor working with you to do this has a safe harbor certification for human resource data. This can be found at [http://www.export.gov/safeharbor/](http://www.export.gov/safeharbor/). This ensures that the policies and procedures of those working with you on human capital process improvement have had their policies and procedures reviewed by a third party to ensure they conform with international standards. KnowledgeAdvisors Safe Harbour certificate can be found at [http://web.ita.doc.gov/safeharbor/SHList.nsf/f6cff20f4d3b8a3185256966006f7cde/d974dcdfe8b8222c85256e4d0012874e?OpenDocument&Highlight=2,KnowledgeAdvisors](http://web.ita.doc.gov/safeharbor/SHList.nsf/f6cff20f4d3b8a3185256966006f7cde/d974dcdfe8b8222c85256e4d0012874e?OpenDocument&Highlight=2,KnowledgeAdvisors)

- **Data security.** This is slightly different but complimentary to data protection. This is looking closer at systems and physical security once done is collected. Organizations should ensure vendors working on human capital analytics have the following security safeguards:
  - Physical security
  - Network security
  - Host quality control
  - Application quality control
  - Backup procedures
  - Disaster recovery plans

- **Customization/Configuration.** Although the Human Capital Process Classification Scheme is meant to help organizations communicate and share best practices and benchmarks around human capital management, there also should be room for customization and configuration. Ensure that the human capital analytics partner you work with is able to understand your individual needs and customize or configure the measurement templates, standards, and technologies to those needs.

- **Adaptability.** Processes change as time changes. Human capital managed processes such as those in the Human Capital Process Classification Scheme should be reviewed on a regular basis to ensure they continue to function as designed and are not exposed to significant risk due to business climate changes. Being able to identify problems before they are a significant risk and adapt to them is a key to effective human resource analytics functions.
**Action Steps to Start Effective Human Capital Measurement**

In order to begin effective human capital measurement a readiness assessment of the processes outlined in the Human Capital Process Classification Scheme should be conducted. This readiness assessment is a ‘mile wide—inch deep’ view of these processes. The objective of the assessment is to understand where gaps and improvement opportunities lie. Once done a drill down into more detailed diagnostics to assess at the individual process level is done.

For example, if the readiness assessment reveals significant risk in the employee turnover process, a more detailed diagnostic could be done to understand that process better. If it is revealed from the process diagnostic that exit interview data is not being conducted in a consistent, timely and aggregate manner then a measurement that is put in place is a standard exit interview survey to help measure this function in a more effective manner. In this example the exit interview is the measurement mechanism that may stay in place and become a part of the process to ensure it is managed better, with reliable data for information decision making.

In summary the steps would be:

1. Conduct a high level, ‘macro’ diagnostic to review all processes in the Human Capital Process Classification Scheme and determine the specific processes with the largest gaps. In this case the diagnostic goes across the four enablers in the scheme: Manage Deployment of Personnel, Manage Competencies and Performance, Develop and Train Employees, and Motivate and Retain Employees.

2. The next step is to conduct a more tactical diagnostic within a specific sub-process in one or more enabling processes. In the example above one would have looked at the Manage Deployment of Personnel then the Employee Turnover process to drill into the exit interview measurement.

3. The process is injected with measurement _into_ it. This will help in managing it better. The standard exit interview that is aggregated across the company would be the example.

4. As measures help manage improvements can be made to the process and complimentary processes. In the example the exit interview data analysis can help the recruit, select and hire process by feeding it with information on the type of people that typically leave the organization.

The diagram below illustrates the flow of these actions steps:
Summary
For years research has been produced to provide reasonable evidence that management of human capital yields highly performing workforces that result in increased business outcomes and financial outcomes which lead to wealth creation.

In today’s environment of limited resources there must be a greater emphasis on proactively measuring human capital processes so they function as designed and fulfill their mission of business, financial and wealth related outcomes.

This paper illustrates a model and approach and action steps to begin measurement of human capital processes. KnowledgeAdvisors provides consulting, templates, standards, and technologies to assist organizations in this endeavor.

About KnowledgeAdvisors
KnowledgeAdvisors is a human capital analytics solutions and technology firm that helps organizations measure, communicate and improve the impact of their people by better managing processes through reliable metrics. Its proprietary measurement systems and benchmarking expertise help companies more successfully manage their human capital and talent management investments.

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