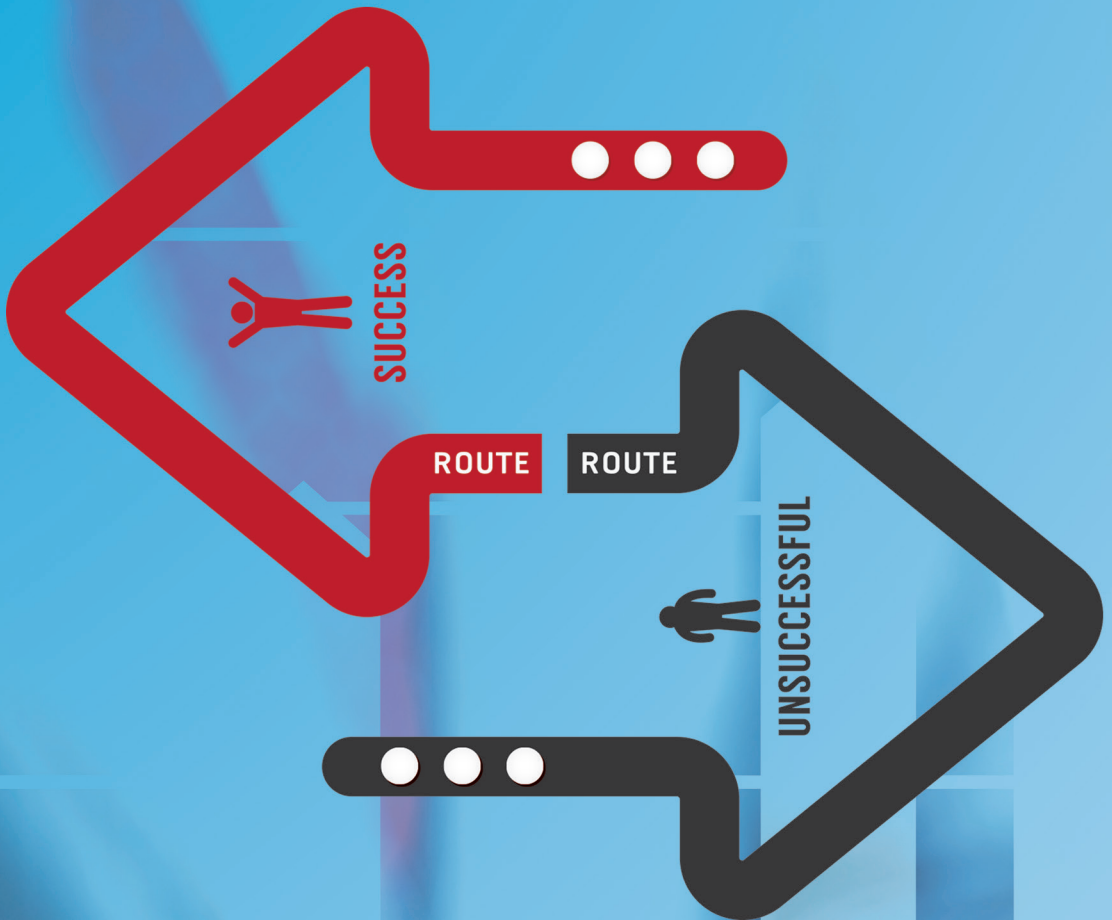


ACCOUNTABILITY IN HUMAN RESOURCE MANAGEMENT

CONNECTING HR TO BUSINESS RESULTS



SECOND EDITION

JACK J. PHILLIPS,
PATRICIA PULLIAM PHILLIPS
AND KIRK SMITH

ROUTLEDGE

Accountability in Human Resource Management

From selection and assessment, to training and development, and reward management, all HR functions have an impact on an organization. Ever-present budgetary pressures mean that there is perpetual competition for resources, so HR departments must be able to account for and justify their contribution to the bottom line.

This practical text presents a results-based approach to HR accountability, which explains how to:

- uncover and monitor the costs of HR programs;
- develop programs emphasizing accountability;
- collect data for evaluation;
- measure the contribution of human resources; and
- calculate HR's return on investment.

This new edition is fully revised and updated to reflect developments in the field, such as the rise of talent management and the increased role of technology in HR measurement, and is supported with international examples throughout. New chapters have been added to address business alignment, HR scorecards, analytics maturity, and international applications of the methodology. Case studies, tool templates, and lecture slides are provided as online supplements for HR practitioners and students.

Accountability in Human Resource Management (2nd ed.) is a complete and detailed guide suitable for HR professionals and students on advanced human resource management courses.

Jack J. Phillips is Chairman of ROI Institute Inc. and President of the International Society for Performance Improvement.

Patricia Pulliam Phillips is President and CEO of ROI Institute Inc.

Kirk Smith is Director of Analytics Implementation at ROI Institute Inc. and Assistant Professor of Human Resources at Western Carolina University, USA.

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Second Edition

**Jack J. Phillips, Patricia Pulliam
Phillips, and Kirk Smith**

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3 A results-based analytics model

The previous chapter explored the many different ways the HR function has measured its contribution. In some organizations, this is now labeled *human capital analytics (HCA)*, which has evolved from a patchwork of various studies and processes into an important part in an organization's human resources function. The chapter also demonstrates the need for a systematic, rational, and logical way to approach the analytics process so that it can efficiently and effectively satisfy all stakeholders' needs, particularly those of top executives, including the chief financial officer. A proven model is presented to measure the success of any HR program, analyze relationship between variables, and develop a predictive model. This chapter also examines the challenges of HCA as well as the benefits of building an effective HCA practice.

Human capital analytics maturity

As reported in The State of Human Capital 2012 report titled, "False Summit: Why the Human Capital Function Still Has Far to Go," HCA is the linchpin of human capital investments.¹ Although organizations are embracing some of the tried-and-true approaches as described in the previous chapter, others have matured to a higher level of analytics by investing in capacity building through hiring and developing skills as well as taking advantage of technology. Also, the business questions driving the need for HR to advance with analytics are changing.

The Conference Board 2011–2012 Human Capital Analytics Research Working Group researched how organizations progress along the analytics continuum. Using the MIT Sloan Management Review/IBM Institute for Business Value research as the foundation for their own, the HCA Research Working Group developed a maturity model that reflects how HR functions advance in their HCA practice. The HCA Research Working Group found that maturity occurs as organizations identify challenges and opportunities and apply various frameworks and techniques and ultimately align key measures to business outcomes. Successful maturity requires that HR professionals have a clear strategic context and engage with their key stakeholders. Even though an organization may reach the highest level of analytics maturity, it always will experience a need

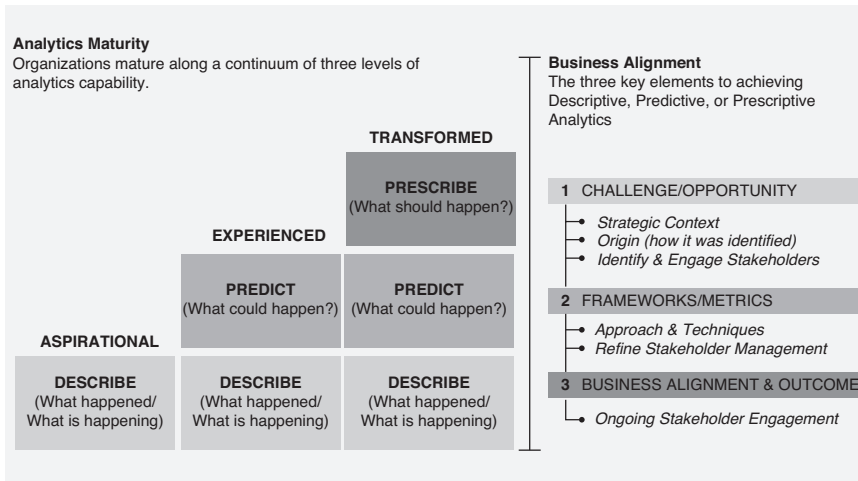


Figure 3–1 Human Capital Analytics Maturity

Source: This graphic representation was designed by several members of the Research Working Group. The concept of the three levels of analytics capability is adopted from Steve LaValle, Eric Lesser, Rebecca Shockley, Michael S. Hopkins, and Nina Kruschwitz, “Big Data, Analytics, and the Patha from Insights to Value,” *MIT Sloan Management Review* 62, no. 2 (2011): 21–32. J. Fitz-enz, P. Phillips, and R. Ray, *Human Capital Analytics: A Primer*, The Conference Board. Research Report R-1500–12-RR. 2012, p. 15. Used with permission.

for the less mature practices. Organizations can identify with any position on a maturity model with the true measure of progress defined by the human capital professional’s ability to traverse the ever-changing analytics terrain.

HCA maturity includes three types of analytics. Figure 3–1 depicts these types of analytics along a maturity continuum. Each type of analytics answers different business questions.

Descriptive analytics

Descriptive analytics is the most fundamental level of analytics. It answers questions such as “What happened, and what is happening now?” Data from this type of analysis describe the conditions, people, and events as they were in the past or as they exist today. Descriptive analytics provides information useful in assessing the extent to which an organization is meeting its goals, as well as the extent to which employers are attracting the right candidates. An example of the use of descriptive analytics is the application of comprehensive talent assessments describing job requirements, preassessments, and postassessments that give organizations information on their workforce, which they can then benchmark against others.

At a solution level, descriptive analytics help determine the value of programs as well as provide suggestions as to how to improve programs so that they can provide greater value. Descriptive data are often captured on scorecards and dashboards so that HR leaders and professionals can describe easily to stakeholders essential HR measures as well as connections to business measures that reflect the investment in human capital.

Predictive analytics

As mentioned in the previous chapter, over the past decades, efforts have been made to develop statistical relationships between key HR measures and organization performance measures. Using historical or existing data as the basis, predictive analytics moves the human capital practice further so that HR leaders can answer questions such as “What could happen, and when could it happen?” Data from predictive analytics describe conditions, people, and events as they could be in the future and when they are likely to be that way. It is useful in helping organizations determine possible outcomes of particular HR activities and influences the decisions of stakeholders.

Prescriptive analytics

The ultimate level of maturity with HCA is in prescriptive analytics. This form of analytics helps organizations answer questions such as “What is the best course of action?” Prescriptive analytics combines predictions in decision making while taking into account the impact of those decisions. It describes what is possible given particular factors and what courses of action would be optimal given all the potential combinations of options and outcomes. An example of prescriptive analytics can be found in the literature on workforce optimization. In The Conference Board’s 2014 research report, “Human Capital Analytics @ Work, Volume 1,” ABM, with the help of Mercer, developed a workforce optimization model that describes the optimum number of employees and activities a manager can handle and still drive profitability for ABM.²

Figure 3–1 depicts The Conference Board’s Human Capital Analytics Maturity Model as developed by the HCA Research Working Group. This model does not suggest that one level of maturity is better or worse than another. It simply demonstrates the continuum along which organizations are moving as they advance their HCA practice. This book is an effort to help organizations develop along this progression.

Types of data

Although most organizations use some approach to placing similar types of measures together, a logical data categorization framework is needed that uses levels of data, recognizing that the next level is usually more valuable than the

previous level from the perspective of the senior executive group. These levels are depicted in Figure 3–2.

Inputs

Level 0 represents the Input to a solution and details the numbers of people and hours, the focus, and the cost of the solution. These data represent the activity






Level	Measurement Focus	Typical Measures
0-Inputs 	Inputs into the solution, including indicators representing scope, volumes, costs, and efficiencies	Types of topics Number of programs Number of people Hours of involvement Cost of projects
1-Reaction 	Reaction to the solution, including the perceived value of the program	Relevance Importance Usefulness Appropriateness Intent to use Motivational
2-Learning 	Learning how to use the solution, including the confidence to use what was learned	Skills Knowledge Capacity Competencies Confidences Contacts
3-Application and Implementation 	Use of solution and materials in the work environment, including progress with implementation	Extent of use Task completion Frequency of use Actions completed Success with use Barriers to use Enablers to use
4-Impact 	The consequences of the use of the solution expressed as business impact measures	Productivity Revenue Quality Time Efficiency Customer satisfaction Employee engagement
5-ROI	Comparison of monetary benefits from solution to solution costs	Benefit cost ratio (BCR) ROI (%) Payback period

Figure 3–2 Types and Levels of Data

around a human capital investment rather than the contribution of the solution. Level 0 data indicate the scope of the effort, the degree of commitment, and the support for a particular solution. For some, this information equates to value. However, commitment as defined by expenditures is not evidence that the organization is reaping value.

Reaction

The next level is Reaction. It details how employees, associates, members, and other individuals connected to the organization react to a particular solution or project. These data, such as relevance, importance to success, appropriateness, usefulness, and intent to use, are important. They represent perceived value of a solution from the perspective of those involved in it in some way. These data are important, because adverse reaction is often a clear indication that nothing will come of the solution – it will serve merely as an expense rather than an investment. For example, an employee referral as a recruiting source can be successful or unsuccessful, based on the reaction of employees to that solution. If they think it is valuable and important, and it is rewarding for them to make the referral, they will do it. Otherwise, they will not. Another example is the reaction employees have to a new diversity and inclusion effort. Positive reaction that reflects commitment to it is a good indication the process will be embraced as important to organization strategy.

Learning

The next outcome level is Learning. Measures of learning ensure that the individuals involved in a solution know what they need to know or know how to do what they need to do to make a solution, system, initiative, or project successful. These data may represent knowledge, information, awareness, and critical skill sets necessary for work to be done, programs to be implemented, and processes to be completed. Without the requisite knowledge, things can go awry. For example, almost 70 percent of employees in one of the largest healthcare organizations in Canada did not receive flu shots, although senior executives had requested flu shots for all employees. As a healthcare provider, it is important for employees to avoid flu because they could be absent more frequently and they may pass the flu along to their patients. At the same time, they may be exposed to the flu more than any other occupation. Some analysis revealed that they did not pursue the flu shots because of some misunderstandings and misinformation about the shots and their effectiveness. When employees became more enlightened and the misinformation was clarified, the percentage of employees receiving flu shots increased significantly.

Application and implementation

The next level, Application and Implementation, also referred to as behavior or implementation, is a measure of people's actions, activities, and behaviors.

Measures at this level are critical. Sometimes solutions break down or do not work because people do not do what they should do to make implementation of a solution successful. Sometimes executives think that when something is not working, they want new behavior in place, suggesting that the new behavior will correct things. An example repeatedly told in the analytics literature is one describing Harrah's use of smile frequency as a predictor of customer satisfaction. This simple behavior led Harrah's to implement a program and thereby affect a key organization outcome measure.³ Behavior, action, and implementation represent critical measures that lead toward organization performance.

Impact

The fourth level of data is Impact. This category includes measures that are in the system and represent all types of business data. In most organizations, these measures exist by the hundreds, if not thousands, and they reflect the condition of output, quality, cost, and time, which are major categories of any work in an organization. These measures usually define the problem or opportunity that initiates an analytics project. For example, an excessive number of patient accidents were the driver for an analytics project at a healthcare firm. Reduction in customer satisfaction and new customer accounts were the drivers for an analytics project for a large financial institution.

ROI

A fifth level of data is return on investment (ROI), a measure that reflects ultimate accountability. It is a benefit-cost ratio (BCR), the financial ROI expressed as a percentage, or the payback period (PP) that indicates how long it will take for the investment to pay for itself. Although other measures of financial return exist (e.g., return on equity, return on assets), BCR, ROI, and PP seem to be the most common measures and are most appropriate for measuring financial output of human capital investments. These data are the output of the process and represent an important part of analytics. Ultimately, many analytics projects lead to ROI and require a comparison of the benefits to costs.

Types of analytics projects

The variety of tasks, processes, and procedures involved in analytics is vast. Some analysts suggest that any type of analysis to understand, support, or improve human resources programs are an analytics project. However, it is helpful to think of projects in five different but related categories. These categories are helpful because they are common and represent typical existing studies that can easily be located, analyzed, and compared. Each category is described in more detail throughout the book.

Sometimes only one of these analytics processes is taken. For example, an organization may recognize a need to understand the financial value of a measure before investing in a solution or initiative. On the other hand, it may be important to show the ROI for a particular solution. This analysis includes demonstrating causation, converting data to money, and comparing the output with the cost of the solution. Regardless of the analytics project, these five categories should encompass whatever type of analysis is required.

Converting data to money (Type I)

A tremendous push to understand the value of measures is evident in most organizations, and one of the best ways to understand value is to convert it to money. If it is something that needs to increase, such as engagement, executives want to know the monetary value of it. If it is something that needs to be eliminated or prevented, such as an accident or incident, executives want to know the cost of each item to understand the magnitude of the problem. One type of analytics project is to convert data to money. Some measures are converted easily, but others are harder to value and require a more advanced analytics process. Hard-to-value data items include:

- Job engagement
- Job satisfaction
- Stress
- Employee complaints
- Health status
- Ethics
- Teamwork
- Networking
- Customer satisfaction
- Reputation

For example, an electric utility wanted to know the monetary value of stress created as the industry became deregulated. Utility teams had to be more productive and more efficient. This push for productivity caused excessive stress among team members, and the executives were interested in having a better understanding of the monetary value of the problem.

The good news is that work has been done by organizations to convert some common hard-to-value data into money. A classic example is that of Sears, where an analysis connected employee attitude to customer perception to revenue.⁴

Showing relationships and causation (Type II)

This type of analysis involves understanding the relationship (or lack thereof) between variables and involves correlation and regression analysis. For example,

a question of interest may be “Does increasing employee engagement increase the likelihood that employees will work more safely, be more productive, or reduce errors?” Or the question may be one of determining any difference in performance of engaged employees versus nonengaged employees. Analysis for these types of questions attempts to see not only whether a correlation exists, but also whether correlation indicates a causal relationship. Typical correlations that are being pursued through the use of analytics are:

- Job satisfaction versus retention
- Job satisfaction versus attraction
- Job satisfaction versus customer satisfaction
- Engagement versus productivity
- Engagement versus safety
- Engagement versus sales
- Engagement versus quality
- Organizational commitment versus productivity
- Stress versus productivity
- Conflict versus productivity
- Culture versus productivity
- Ethics versus profit

The opportunities are limitless in terms of exploring relationships inside an organization. In addition, this step looks for causation that might not be based on mathematical relationships. Sometimes other methods can be used to explore the cause of a problem or determine what will influence an opportunity. These different techniques are listed in Table 3–1. An important point of this step is that the cause of the problem reveals the solution to the opportunity that needs developed.

Applying predictive models (Type III)

Predictive models for projects are an extension of the relationship category. When relationships or connections are made, can they be used in a predictive

Table 3–1 Analysis Techniques

<i>Diagnostic Questionnaires</i>	<i>Statistical Process Control</i>
• Focus Groups	• Brainstorming
• Probing Interviews	• Problem Analysis
• Job Satisfaction Surveys	• Cause-and-Effect Diagram
• Engagement Surveys	• Force-Field Analysis
• Exit Surveys	• Affinity Diagrams
• Nominal Group Techniques	• Simulations

way? The independent variable predicts dependent variables. Typical predictive relationships that have been established in some organizations are:

- Recruiting source predicts retention
- Selection test predicts safety performance
- Interviews predict absenteeism
- Values survey predicts early turnover
- Health risk status predicts absenteeism
- Absenteeism predicts productivity
- Benefits participation predicts retention
- Compensation predicts retention
- Employee assistance program (EAP) use predicts health status

Again, the opportunities are limitless in terms of developing these models. Sometimes the model involves a chain of measures so that one measure predicts another, and then that variable predicts another. The predictive model from Sears, mentioned earlier, connects job satisfaction to the percent of revenue growth. In this example, a movement in job satisfaction will predict improvement in customer satisfaction, which would predict a growth in revenue for the store. Results from the project show that a 5-point improvement in the total job satisfaction drives a 1.3-unit improvement on a customer satisfaction survey, which drives a 1.5 percent improvement in revenue growth. The profit margin is applied to the sales growth to develop a value-added dollar figure. By way of this model, improvements in job satisfaction become a predictor of profit in stores.

Conducting impact and ROI analysis (Type IV)

A dominant type of analytics project involves showing the impact and ROI of a specific human resources program. These types of studies describe the reaction, learning, application, impact, and ROI for a particular solution. Executives find it helpful to understand the value of particular solutions. Most analytics projects lead to solutions. Impact and ROI studies are usually reserved for those programs and projects that are expensive, important, and command executive attention. They can cover a variety of areas:

- Recruiting/selection
- Training/learning/development
- Leadership/coaching/mentoring
- Knowledge management
- Organization consulting/development
- Policies/procedures/processes
- Recognition/incentive/engagement
- Change management/culture
- Technology/systems/IT

- Green/sustainability projects
- Safety/health programs
- Talent retention solutions
- Project management solutions
- Quality/Six Sigma/Lean Engineering
- Meetings/events
- Marketing/advertising
- Communications/public relations
- Public policy/social programs
- Risk management/ethics/compliance
- Flexible work systems
- Wellness and fitness programs

All roads lead to ROI

Understanding the importance of impact and ROI in the minds of executives who fund a variety of human resources programs is helpful. In discussions with these executives, the focus often shifts or evolves to the ROI issue. For example, an organization has invested a tremendous amount of money on employee engagement. Engagement is being measured with an employee engagement survey. Executives may ask, “What is the value of having more engaged employees?” or “If engagement scores increase, what outcomes can we expect?” These questions suggest that executives are interested in the monetary value. This is a Type I analytics project.

In order to answer the question, engagement program owners would have to connect engagement to money – typically through an easy-to-value measure. The data may show that engagement is connected to gross productivity, which can be defined as revenue per employee. If engagement has been moved from a lower level to a higher level, the gross productivity movement can be pinpointed. These data are easily converted to money. Adding the profit margin shows the actual monetary contribution of improvement in job engagement. This is a Type II analytics project. If the relationship is operationalized, after testing and validation, this is now a Type III project.

By showing the productivity improvement connection, the next question is, “So what is the ROI?” Answering this question requires comparing the monetary benefits of improvements in gross productivity connected to engagement with the fully loaded cost of the engagement solution. This ROI analysis is a Type IV human capital analytics project. Quickly, a request for Type I leads to Type II, which leads to Type III, and finally Type IV, the ROI. Sometimes executives, when facing a potential planned program for improving job engagement based on the initial assessment of the score, may ask for a value of forecasted ROI before they get started. This more detailed project would be a Type V human capital analytics project, an ROI forecast before it is implemented.

Obviously, when it is implemented this would also require a Type IV analysis, which shows ROI on a follow-up basis. When discussing almost any solution or human capital analytics project with executives, they often ask, “So what happens if we do it? What is the impact? What is the monetary value? What is the ROI?” All roads lead to ROI.

Forecasting ROI (Type V)

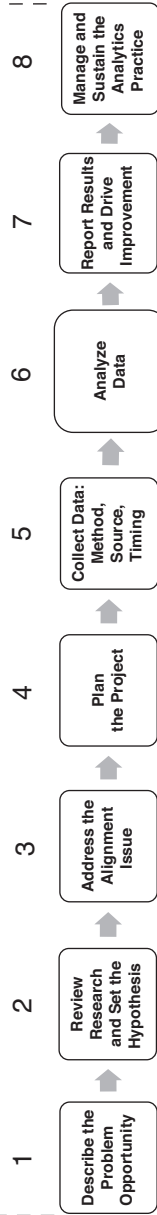
Sometimes when major projects or programs are implemented, understanding the potential payoff for the program before it is implemented is helpful. This assessment involves forecasting the impact that will be influenced by the program, converting it to monetary value, and comparing it with the proposed cost of the solution. A challenge with forecasting is to be as accurate as possible so that the forecast can be realistic and used for decisions. Of course, if a forecast is conducted as a requirement, follow up and make sure that the forecast has been achieved. Some of the major programs that are being subjected to forecasting are:

- Wellness and fitness programs
- Flexible work systems
- New compensation arrangements
- New benefits structures
- Organization development projects
- Transformational projects
- Talent retention projects
- Talent management projects
- Leadership projects
- Change projects

Human capital analytics model

With such a variety of projects, addressing HCA with systematic processes is sometimes difficult, but it is possible and necessary. As W. Edwards Deming said, “If you can’t explain what you do as a process, you don’t know what you are doing.” Executives want to know whether consistent processes can be repeated from time to time and that the assumptions are conservative in the analysis. These qualifications are necessary so that they can believe the results, which lead us to a set of process steps that are described in greater detail in Figure 3–3, the Human Capital Analytics Model developed by the ROI Institute.⁵ It is through the use of this model that organizations can make analytics work.

Managing and Sustaining the Analytics Practice



Five Types of Analytics Projects

1. Converting Data to Money
2. Showing Relationships and Causation
3. Applying Predictive Models
4. Conducting Impact and ROI Analysis
5. Forecasting ROI

Data Categories

0. Input (Volume and Efficiencies)
1. Reaction
2. Learning
3. Application and Implementation
4. Impact (Tangible/Intangible)
5. ROI

Analyze Relationships, Causation, and Attribution

Select the Solution and Set the Objectives

Calculate Monetary Benefits, Costs, and ROI

Forecast, Test, Predict, and Optimize

STANDARDS

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Figure 3--3 Analytics Model for Making Analytics Work ROI Institute. All rights reserved.

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Define the problem/opportunity

The first step is to define the problem, making sure that the business measure or measures linked to the project are defined clearly or the phenomenon is described clearly. The issue here is a problem or opportunity that must be described to make the project successful. Sometimes initial problems or opportunities are often presented to the HCA team in vague terms. The challenge of this step is to make sure that it is a problem worth solving or an opportunity worth pursuing.

Review research and set the hypothesis

When the problem is clearly defined, the question is: what do we expect to occur? For example, is job satisfaction related to attraction or does job engagement relate to an increase in sales? These expectations are established as a hypothesis or, sometimes, multiple hypotheses. A hypothesis can be written mathematically but often is stated in simple terms to executives. The key is to anticipate expectations early in the process.

Address the alignment issue

Alignment ensures that the project is connected to important levels of data throughout the project. Chapter 5 introduces the business alignment model, which aligns needs with objectives and evaluation. An HCA project fits into the business alignment model at some point, as alignment can occur in several levels. Although this issue is addressed in Step 1, the alignment process keeps the focus. It may require detailed analysis, whereas other times it may be a quick conclusion based on the data. Alignment is critical at the business level, where specific business measures are identified in the beginning. Chapter 5 provides more detail on alignment.

Plan the project

Any analytics project will need a plan, maybe several. Planning is critical to ensure all key issues in the study are addressed, including making initial assumptions of how the project will unfold. Of the four types of plans, the first is the data collection plan, describing methods of data collection, sources of data, and timing of data collection. The second plan, the analysis plan, indicates what particular types of analyses are planned and how they would be used in the project. A third plan is the communication plan, detailing how the results will be reported to a variety of audiences, and important topics with HCA projects. A fourth plan is a classic project plan that indicates the timing of the project from the beginning until the results are communicated and actions are taken. Proper investment in these four plans will make the entire project much easier.

Collect data

Every HCA study will involve collecting data. Data collection ranges from monitoring the data in the system to using questionnaires, interviews, focus groups, and observation. This step involves all the methods from the plan, which are now fully initiated and the data collected. Because of its importance, data collection is covered in detail in Chapter 7.

Analyze relationships, causation, and attribution

When trying to understand a problem, it is necessary to sort out from among several factors the cause, which moves beyond correlation. This step involves quantitative methods such as hypothesis testing and experimental design or qualitative methods such as problem solving or brainstorming. When a solution is implemented and improvement in a business impact measure has occurred, the question is how much of the improvement actually is connected to the solution. This critical step of attribution isolates the effects of different processes from the solution. It is necessary for accuracy and credibility. Several methods are available to accomplish this step and are outlined in more detail in Chapter 8.

Select the solution and set the objectives

This analysis can come at different times, but at some point a solution is needed. It could come early, after using descriptive statistics, or it can come after detailed analysis points to what exactly caused the problem. The solution is implemented to improve one or more impact measures. A variety of tools and processes will be used to ensure that this is the proper solution to address the problem or opportunity in the most economical way. An important part of this step is to set the objectives at different levels and is explored in Chapter 6.

Calculate monetary benefits, costs, and ROI

Sometimes a project involves converting data to money. From a client perspective, the best way to understand a problem or an opportunity is to convert it to money, based on additional profits, reduced costs, or avoided costs. There are a variety of techniques available for converting data to money. This step is necessary if the project includes ROI analysis. When a solution is implemented, understanding the impact of the solution in monetary terms is helpful, converting data to money at a later step in the process through a variety of techniques.

Sometimes developing the full cost of a particular human capital solution is necessary. Executives need an understanding for the investment in particular area. For example, executives may ask for the total cost of wellness and fitness in terms of coordination, administration, equipment, facilities, programs, and even time for those who are involved in this process. These costs are necessary for an ROI calculation when the monetary benefits of the program are compared with all of the

cost – the definition for the financial ROI. In either case, all cost must be included, both direct and indirect. More detail on costs will be discussed in Chapter 9.

Forecast, test, predict, and optimize

Sometimes the ROI forecast for a particular solution is needed, or the forecast of success from a predictive model may be needed. In today's climate, executives want to know whether a solution will work before it is implemented. This step also involves a predictive model at the impact level, testing the model for feasibility and accuracy, optimizing it, and exploring what can be done to maximize the impact and ROI.

Report results and drive improvement

Any HCA project involves many stakeholders. The challenge is to make sure that all stakeholders have the data and results, understand their role in achieving them, and know how to make improvements or adjustments. Some audiences need detailed information, others need brief snapshots. The key is to identify the appropriate audience, select the appropriate methods, and deliver a message that helps it achieve and understand the results. This final step includes driving improvements using results from the analytics project. These results are used to make a decision. The key is to use the data to drive the improvement or the change desired and follow through to make sure that has happened. Chapter 10 provides more detail on these important issues.

Manage and sustain the analytics practice

A variety of issues and events will influence the successful implementation of HCA. Specific topics or actions may include:

- A policy statement concerning HCA development
- Guidelines for different elements and techniques of the HCA process
- Meetings and formal sessions to develop staff skills with HCA
- Strategies to improve management commitment and support for HCA
- Mechanisms to provide technical support
- Specific techniques to place more attention on results

HCA can fail or succeed on the basis of these implementation issues.

Follow conservative standards

Standards serve as the foundation to implementing the Human Capital Analytics Model. To ensure consistency and replication of studies, the operating standards have been developed and tested in practice. The results of an HCA project must stand alone and should not vary based on the individual who is conducting the study. The operating standards detail how each major step and issue of the

process should be addressed. The following standards presented and detailed in this book are referred to as:

- 1 Align projects to business measures.
- 2 Use the simplest statistics in the HCA project.
- 3 When collecting and analyzing data, use only the most credible sources.
- 4 When analyzing data, select the most conservative alternative for calculations.
- 5 If no improvement data are available for a population or from a specific source, assume that little or no improvement has occurred.
- 6 Omit extreme data items and unsupported claims in the analysis.
- 7 Address causation in problem-solving analysis.
- 8 Use at least one method to isolate the effects of the solution.
- 9 Adjust estimates of improvement for the potential error of the estimate.
- 10 When a higher level evaluation is conducted, collect data at lower levels.
- 11 When an evaluation is planned for a higher level, refrain from being too comprehensive at the lower levels.
- 12 Use only the first year of benefits (annual) in the ROI analysis for short-term solutions.
- 13 Use fully loaded costs for HCA projects.
- 14 Define intangible measures as measures that are not converted to monetary values.
- 15 Communicate results of HCA projects to all key stakeholders.
- 16 Use results of human capital projects to drive improvements.

These specific standards not only serve as a way to consistently address each step, but also provide a much-needed conservative approach to the analysis. A conservative approach will build credibility with the executive audience.

The development of the human capital analytics model

Although much progress has been made, HCA is not without its share of problems and issues. The mere presence of the process creates a dilemma for many organizations. When an organization embraces the concept and implements an HCA practice, the management team usually is awaiting results anxiously, only to be disappointed when they are not available readily. For the process to be useful, it must balance many issues such as feasibility, simplicity, credibility, and soundness. More specifically, three major audiences must be pleased with the practice to accept and use it:

- Team members who design, develop, and conduct the projects need a simple, user-friendly process.
- Senior managers, sponsors, and clients who fund, initiate, and support projects need a credible outcome based on a conservative process.
- Researchers, professors, and critics who must support the analysis need a proven process that is logical, reliable, and valid.

Purposes of measurement, evaluation, and analytics

Measurement, evaluation, and analytics are usually undertaken to improve the HR function or measure its contribution to organizational effectiveness. However, there can be other purposes for evaluation and an understanding of each purpose can be helpful in planning the evaluation strategy. The following represent the six most common reasons for evaluating the HR function:

- **To determine whether a program is accomplishing its objectives.** The most important purpose of HR evaluation is to determine the extent to which objectives are met. Properly designed HR programs should have objectives, stated in generally accepted terms (i.e., challenging, achievable, written, measurable, and dated).
- **To identify the strengths and weaknesses of HR processes.** An evaluation effort can help to determine the effectiveness of the content and administration of HR programs or services. Typical processes evaluated include such items as the steps to fill a job vacancy, method of presentation for a training program, procedure to process medical claims, and use of an EAP. These processes make a difference in the success of HR programs and should be evaluated to make improvements.
- **To calculate the return on investment in an HR program.** An increasingly common reason for evaluation is to determine if a program justifies the expenditure. This type of evaluation compares the costs of the HR program with its economic value. For example, an absenteeism control program is implemented for retail sales associates. Absenteeism is monitored before and after the program. The resulting benefit (absenteeism reduction) is converted to a monetary value, which is then compared with the cost of the program to develop the return over a defined time period. This type of evaluation provides management with data to eliminate an unproductive program to increase support for programs that yield a high payoff, or to make necessary adjustments in programs to increase results or value.
- **To collect data to assist in marketing future programs.** In some situations, HR departments are interested in knowing why employees participate in specific programs. This type of evaluation is appropriate for programs in which participants have an option for participation. Examples include career development activities, flexible benefits plans, wellness and fitness programs, EAPs, savings plans, profit-sharing plans, employee suggestion programs, and educational programs. In most organizations, several options are offered and the HR department does not always know why someone chooses to participate in a specific program or program option. Questions are developed to provide insight into how employees make choices and the results they have experienced. When integrated with other evaluation data, this information is useful for program planning and future promotional efforts.

- **To determine if the program was appropriate.** Sometimes an evaluation can determine if the original problem or issue that necessitated the program was solvable by the HR staff. Too often an HR program is implemented to correct problems that cannot be corrected by the program. Other reasons for performance deficiencies may exist, such as systems, procedures, work flows, or supervision. An evaluation may yield insight into the actual need for HR staff action. For example, in one organization, the evaluation of outcomes from a career resource center indicated that the center was not used appropriately and actually resulted in employees leaving the organization.
- **To establish a database that can assist management in making decisions.** The central theme of most evaluations is to make a decision about the future of an HR program. A comprehensive evaluation system builds a database to help managers make these decisions. This information can be useful to program coordinators and the HR management, as well as top executives who must approve resources for future programs. For example, an ongoing evaluation of an EAP provides management with information necessary to determine whether it should be continued and, if so, whether any changes are needed.

HR measurement and evaluation myths

Several faulty assumptions often surround the mysterious process of HR evaluation. These myths have hindered HR professionals from measuring their contributions and have slowed the adoption of sound practices in this responsibility area. Nine common myths are presented here, along with a few reasons why they should be discarded.

- **Evaluation should not be undertaken if the HR staff is not motivated to pursue it.** Although HR professionals are interested in implementing effective programs and achieving desired results, they often run into difficulty in defining acceptable results. To some, results may be in the form of self-satisfaction of seeing a program function smoothly with few problems. For others, only bottom-line results are acceptable. HR professionals do not often view measurement and evaluation as part of their job. It is perceived as a responsibility of other individuals or another section within the HR function. Also, HR professionals sometimes resist efforts to evaluate programs because their individual performance may be scrutinized. They do not want to expose their weaknesses, problem areas, and inefficiencies.
 - The need for evaluation must be presented convincingly to the HR staff. They must understand why evaluation is important and, most of all, they must perceive it as an essential responsibility of their department. Not unlike other professionals, the HR staff resists change, and the intrusion of evaluation responsibilities may represent a change that

is unwanted. As with any change effort, thorough explanations and gradual implementation are important to having the process accepted and implemented by the staff. After the system has been operational, the staff usually will see the importance of evaluation, particularly when HR staff members achieve measurable results from their programs.

- **Evaluation is difficult.** Evaluation often is perceived as a complex activity because it involves data collection and analysis. For a variety of reasons, HR professionals have a fear of data analysis and are reluctant to develop an understanding of the process. The methods for collecting data are basic and the techniques for analyzing data are fundamental, within the grasp of understanding of every HR professional. The difficulty often lies in determining what type of data must be collected and how it will be analyzed and presented.
- **The least important HR activities are measurable, while the most important HR activities are not.** HR professionals sometimes see measurement and evaluation as more adaptable to the least important activities of the HR function. Collecting data on items that may have little impact on overall organizational performance, such as the number of grievances or the number of employee complaints, seems relatively easy, whereas more important items such as those that cause declines in productivity or efficiency are more difficult to measure. Although this may be the perception, many of the important variables affecting job satisfaction, productivity, and efficiency can easily be measured and monitored. An appropriate system to monitor the most significant performance data is needed, coupled with the discipline to follow through on the process.
- **Analytics is needed to justify the HR department's existence.** Some HR professionals perceive evaluation as a way to justify HR's existence. Fortunately, the HR function is here to stay: an organization cannot survive without it. A formal measurement and evaluation effort is unnecessary to justify the department's existence. It will, however, enable the department to demonstrate to top management its contribution in order to expand or maintain services and programs. In a few cases, evaluation may provide the basis for keeping the HR staff intact during periods of decline. Also, evaluation can improve the reputation of the department and enhance the influence of the HR staff.
- **There is no time for analytics.** Evaluation can be time-consuming if it is not integrated into each functional area or new program. One of the most time-consuming activities in HR evaluation involves recording information at various stages of program or service delivery. When planned and implemented properly, information needed for evaluation is frequently tabulated by administrative staff and the incremental time required to collect the required information is minimal.
- **Analytics is too expensive.** Because it is perceived to be complex and time-consuming, evaluation appears to be expensive. However, when integrated into program conception, design, development, and delivery, the

evaluation process can be inexpensive and not time-consuming. It will represent only a small part of the total cost of a program. Best practice from the ROI Institute/Vestrics Annual Analytics Study suggests that about 3–5 percent of the HR budget should be spent on measurement, evaluation, and analytics.⁶ The consequences of not evaluating must be considered here. If evaluation is necessary to determine a payoff from a new HR program, how then can an HR department afford *not* to allocate funds for it?

- **If top management does not require it, analytics should not be pursued.** Finding time for a project that is not a priority of top management is difficult. Measurement and evaluation can be ignored easily when top management does not require evidence of HR contribution. Unfortunately, without data to show contributions, top management will make its own judgment about HR contributions and this judgment may be based on inaccurate perceptions or subjective assessments. Often the focus will be on costs, and the consequences could be disastrous. This situation is changing as more chief executives and top managers demand results from all staff departments, including the HR function. The demand for accountability usually intensifies during a recession. A new top executive may also require evaluation, where the previous one did not. If the current trend continues, more top executives will require measurement and evaluation in the future. Prudent HR managers will be prepared for this eventual shift to increased accountability. HR professionals ignoring this trend are likely to be left out, possibly becoming victims of restructuring, downsizing, or layoffs.
- **Unless an ROI is calculated, evaluation will be useless.** Some HR managers have the mistaken belief that when a program is evaluated, a BCR or ROI calculation must be developed. ROI is only one approach to evaluation. It is not only difficult to produce, but in some cases it is impossible. For example, calculating the ROI for an affirmative action program implemented to meet federal regulations is possible. But it may not be needed, from the executive viewpoint. At best, administrative effectiveness could be evaluated along with an assessment of progress toward goals. In still other programs, calculating an ROI is not economical, although it may be possible. For example, suppose a new low-cost employee benefit is added to keep the benefits package competitive and improve job satisfaction. Through attitude surveys and detailed interviews, determining the improved job satisfaction as a result of a new benefit may be possible. A value can also be assigned to the increased job satisfaction with a reasonable degree of accuracy. However, the expense of collecting and analyzing the data may be greater than the cost of the additional benefit.
 - Quite often, implementing a new program or service because it is needed, management wants it, or a government regulation requires it is sufficient. In these cases, calculating ROI makes little sense. A fundamental question about economic feasibility should always be asked: should we spend this much time and money to evaluate this particular program?

- **There are too many variables affecting HR program performance to measure and evaluate the function.** Some HR managers believe the HR process is a very complex and mysterious art that can be judged only by those who perform the work. Even then, the assessment is sometimes bounded by subjective criteria. They argue that business results measures cannot be applied to the HR function. Some even believe that the HR function is not a business activity, although often it exists in, and is funded by, the business organization.
 - In a work environment, several variables can affect an individual's performance including personal drive, the work environment, reinforcement, policies and practices, and external factors. Although these are significant factors not directly under the control of the HR department, they should not be used as a basis for discarding evaluation. Some evaluation designs isolate the impact of HR programs on organizational performance by using control groups. Other techniques are available as well. Always isolating the effects of HR programs is possible. Waiting for a simpler job performance model with fewer variables is analogous to waiting for taxes to go away. It will never happen. Jobs and work environments are becoming more complicated and require the analysis of many interrelated variables.

Obstacles to measuring the contribution

Not all problems connected with measuring the HR contribution are mythical. Some are realistic and represent genuine obstacles to a full implementation and adoption of a results-based HR philosophy. They must be recognized and addressed early in the process. Six common obstacles are outlined as follows.

- **Analytics and evaluation cost.** Each additional stage in the process of designing and implementing an HR program increases cost, regardless of the complexity and necessity of the stage. The additional step of measurement and evaluation will increase costs, ranging from minimal costs for basic measures to significant costs for an extensive, formal evaluation effort. An HR department, stretched to provide a variety of programs under tight budget restraints, may have difficulty in allocating additional resources for measurement and evaluation. However, with proper planning, measurement and evaluation can be incorporated into the design of new systems and programs, minimizing costs. An important consideration is to always examine the costs of evaluation when compared with the perceived value derived from the process. In some cases, an evaluation may not be worth the added cost.
- **Lack of top management commitment.** Strong top-level commitment to evaluation must be present for the process to be successful. A lack of commitment usually stems from executives not understanding fully the HR function and the potential contribution it can make to organizational

performance and the HR goals, activities, and processes. One reason for this situation is that few top executives have actual experience in the human resources field.

- **Lack of analytics knowledge.** A major stumbling block to measuring the HR contribution is a lack of knowledge about the process. Many HR managers do not know how to measure the success of programs. The literature has been void of practical information in measurement and evaluation when compared with other parts of the HR field. Until recently, only a few articles were devoted to HR measurement and evaluation. Success stories were hard to find. Proven evaluation techniques were even more difficult to identify. This void has helped create an apparent lack of evaluation efforts, particularly in smaller organizations.
 - This problem has been amplified by the lack of preparation of the HR team. Although the newer generation of HR managers has had an opportunity to study human resources at a college, only a few courses are available that focus on measurement and evaluation. Unfortunately, statistical courses are usually based in financial, economic, or behavioral science programs, and are not part of the human resources curriculum. Statistical procedures seldom are used to measure the results of the human resources function. Although some researchers have developed a few measures, there has been little effort to communicate the results.
- **Attention to evaluation in program design.** The design, development, and implementation of HR programs have not always followed logical steps, leaving efforts to evaluate results futile and inconclusive. To be effective, evaluation should be planned as one or more steps in program design. These steps should focus on planning the evaluation scheme, collecting data, analyzing data, interpreting the results, and communicating them to appropriate target audiences. A results-based model that includes these steps will be described later in this chapter.
- **Fear of results.** In some cases, HR program evaluation can reflect unfavorably on those who designed or administered the program if it is not effective. All HR program results will not be positive, particularly when reactions and observations are obtained. Unless the HR staff is ready for criticism, evaluation should not be undertaken. Many HR managers have a fear of exposing what they do and letting others know the results of their efforts. Obviously if a program or specific function is not working, the last thing the staff wants to do is to publish a report about it. This fear becomes even more pronounced when HR managers track the cost of programs with the benefits. Program costs should be compared with results, which can be pinpointed only through a properly designed and implemented measurement and evaluation system. Otherwise, costs alone can be frightening.
- **Lack of standards.** The last important obstacle to measurement and evaluation is the lack of standards for judging the success of HR programs. In fields such as accounting, manufacturing, engineering, quality control, and data processing, generally accepted evaluation standards have

been developed. Unfortunately, standards have not been developed for the HR field. Although most HR executives generally know when a measure represents acceptable performance, there have been only a few attempts to develop measures, standards, and indices. This obstacle may be minimized in the future because more organizations are beginning to adopt measurement and evaluation schemes and report their results publically or through benchmarking projects.

Benefits of human capital analytics

Although the benefits of adopting an HCA practice may appear to be obvious, several distinct and important benefits can be derived from the implementation of HCA in an organization. These benefits build on the payoff of showing the HR contribution presented in Chapter 1. Inherent with almost any type of improvement process, these key benefits make HCA an attractive opportunity for the human resource function, regardless of the size and scope of the HR function and type of organization.

Solve problems, find solutions

HCA will allow all types of problems to be solved, which ultimately point to a solution. This area is perhaps one of the most important because problems surface at different times with specific business impact measures, excessive cost, and other operational issues. Knowing what caused it is critical.

Uncover mysteries and relationships

Mysteries often surround particular measures and variables in the organization. Some relationships are perceived to exist; others are unexpected but began to surface with HCA. HCA sometimes offers an opportunity to explore misconceptions and misunderstandings from the management team and false assumptions from operating executives.

Measure contribution

The analytics model in this book is the most accurate, credible, and widely used process to show the impact of HR. The analytics team will know the specific contribution from a select number of solutions. The ROI will determine whether the benefits of the program, expressed in monetary values, outweigh the costs. It will determine whether the program made a contribution to the organization and whether it was, indeed, a good investment.

Set priorities

Conducting HCA projects in different areas will determine which programs contribute the most to the organization, allowing priorities to be established for

high-impact solutions. Successful solutions can be expanded into other areas, if the same need exists, ahead of other programs. Inefficient solutions can be redesigned and redeployed. Ineffective programs may be discontinued.

Focus on results

The analytics model is a results-based process that brings a focus on results with all projects even for those not targeted for implementation. The process requires the project team, clients, participants, and support groups to concentrate on measurable objectives: what the solution is attempting to accomplish. Thus, this process has the added benefit of improving the effectiveness of solutions.

Earn respect of senior executives and sponsors

Conducting projects is one of the best ways to earn the respect of the senior management team and the sponsor (the person who really cares about the project). Senior executives have a never-ending desire to see the value. They will appreciate the efforts to connect HR to business impact and show the actual monetary value. It makes them feel comfortable with the process and makes their decisions much easier. Sponsors who often support, approve, or initiate solutions see HCA as a breath of fresh air. They actually see the value of HR, building confidence about the initial decision to go with the process.

Alter management perceptions of human resources

The HCA process, when applied consistently and comprehensively, can convince the management group that human capital is an investment and not an expense. Managers will see human capital as making a viable contribution to their objectives, thus increasing the respect for the human capital function. This step is important in building a partnership with management and increasing management support for human capital.

Summary

The use of HCA is expanding, and the payoff is huge. The process is not difficult. The approaches, strategies, and techniques are not overly complex and can be useful in a variety of settings. The combined and persistent efforts of practitioners and researchers will continue to refine the techniques and create successful applications. This chapter presented a variety of issues that must be addressed in the human capital practice and outlined a model for making analytics work. The process takes a potentially complicated issue and breaks it into simple, manageable tasks and steps. The building blocks for the process were examined to show how the model has been developed. With thorough planning and consideration for all potential strategies and techniques, the process becomes manageable and achievable. Many of the remaining chapters focus on the major elements of this model and ways to implement it to work in real settings.

Notes

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