Strategic Success Modeling (SSM) and ASSESS v2
Aligning People with Strategy to Achieve Success

White Paper prepared by Bigby, Havis & Associates (BHA)

Human Resource processes and systems, like other key components of the organization should directly support the strategic goals and objectives of the organization. The strategic plan should be translated into behavioral objectives that will guide the activities of the people in the organization. This shifts the focus of Human Resource processes from rules to results and "raises the bar" on employee performance by integrating selection, performance management, training, compensation, and promotion.

In recent years, many companies have used the concepts of competencies and competency models to define the broad behavioral capabilities necessary to achieve these behavioral objectives. Others have used concepts such as success factors or human capital strategies to describe critical abilities and attributes desired in employees to give the organization a workforce that will be able to achieve strategic goals.

These concepts and others focus Human Resource processes on the most important capabilities and provide a global framework for defining desired behaviors and the knowledge, skills, personal characteristics and other attributes necessary for achieving these behavioral goals. We call our version of this type of modeling for Human Resources in organizations Strategic Success Modeling. Strategic Success Models provide the basis from which employment selection, performance appraisal, employee development, training, and other HR processes are derived. The Strategic Success Modeling (SSM) program, as a complement to our ASSESS v2 system, allows companies to align human resource initiatives to overall business strategy. The following paper documents the conceptualization and validation background of the SSM process beginning with an overview and theoretical basis of competencies and competency models.

Why Competency Models?

A competency can be defined as the underlying sets of skills, knowledge, personal characteristics and abilities needed to effectively perform a role in the organization and help the business to meet its strategic objectives. The combination of these factors lead to defining superior performance and excellence. By using competencies as a basis for performance management, an organization can more effectively align people's attitudes and behaviors with what is needed to be competitive and successful as an organization.

The roots for competency modeling date as far back as the early 1900's when Frederick Taylor, the father of scientific management from the 1920's, argued that the task of a management scientist was to break down the subject into its component parts in order to better understand behavior. Thus, job success is best understood when broken down into its component competencies and behaviors that lead to performance. The popularization of competencies in the workplace is credited to Hay-McBer company founder David McClelland through his work with the United States Information Agency in the 1970's. In this work, he identified the attitudes and behaviors of outstanding officers. This was done so that the agency could begin selecting employees on the basis of relevant criteria rather than standard screening tests that were currently being used such as IQ. He and his team did extensive interviews with outstanding and "secure but not outstanding" performers, which focused on behavioral incidents with good and poor outcomes. He found characteristics such as Social Sensitivity and Political Judgment to be key differentiators. He then validated these results by developing personality measures of these competencies and evaluating them against job performance. Later, McClelland published his results arguing that selection for many jobs should be based on competencies rather than standardized tests. As he put it "If you want to test who will be a good policeman, go find out what a policeman does. Follow him around, make a list of his activities, and sample from that list in screening applicants" (Lucia & Lepsinger, 1999; McClelland, 1973).

Competency models have become widely popular in recent years. Through their use, organizations are able to align behavior with organizational strategy and values through various organizational processes and practices.

Competency-based Selection and Development Processes

Competency models have multiple advantages. They clarify work expectations for individuals and create a shared understanding of expectations among individuals by using a common language across jobs and the organization. In this way, they clearly communicate consistent standards. In turn, Human Resource systems can be linked to this language to facilitate selection and guide development. Selection processes increase effectiveness and efficiency when each facet of the selection process is designed to evaluate one or more of the competencies needed for the job.   For example, defined competencies help recruiters to target and evaluate potential candidates and help the organization to identify, develop, and utilize assessments and interviews that are job appropriate. All these components help to ensure informed hiring decisions with a higher probability of selecting the best person for the role. For individuals hired or currently employed, gaps between current and future competence can also be identified and developmental resources can be appropriately allocated for the highest gains. In short, competencies ultimately impact business results (Spencer & Spencer, 1993).

Within both selection and development contexts, competence in an area is the result of many factors working together, which include innate characteristics (natural ability, personality) and learned characteristics (knowledge, experience and skills) as is presented in the following chart. People who have the right competencies or who have a good potential for developing these competencies will be able to do the right things (behaviors) to produce the desired results (effective outcomes).
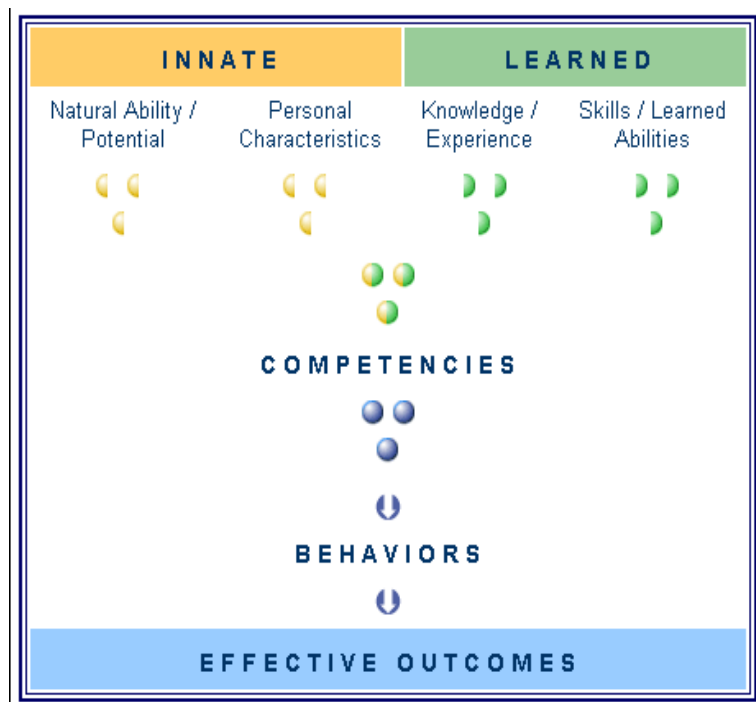
Success in a competency area is achieved through developing and building learned skills and knowledge, as well as possessing, applying, and moderating innate factors, such as personality and intelligence, that may impact the competency area.

It is important when evaluating a person's demonstrated effectiveness, or potential to display a particular competency, that all of these factors – both innate and learned – be evaluated and considered. The learned factors, such as knowledge, experience, skills, and learned abilities can be measured through several methods. An evaluation of past critical experiences, specific and targeted skill assessments, a targeted, structured interview, and 360 degree feedback in a development context are just a few ways of measuring learned factors. The innate factors can be examined through measures of intellectual ability or potential, motivators, values, interests and personality. Through our experience and research, we have found that the ASSESS Expert System, which evaluates intellectual abilities and work-oriented personality, is an effective measure of many of the innate factors that influence the display of competencies.

ASSESS v2: Competency-based Assessments for Selection and Development

An Overview of the ASSESS Expert System

The ASSESS expert system evaluates the work-related personality and abilities of candidates for managerial or professional-level jobs. It is a state-of-the-art system that administers, scores, and evaluates the results of an assessment battery and writes assessment reports much like a BHA psychologist would for use in the business environment.

ASSESS assists managers and HR professionals in two critical human resource functions: (1) Providing hiring managers constructive means for making effective decisions within the context of personnel selection, placement, and promotion decisions, and (2) Assessing and providing objective feedback regarding the long-term developmental needs of current employees.

The ASSESS Personality Survey contains a core of standard questions which measure characteristics related to effective job performance. In a hiring context, this core may be supplemented with one or more general and/or specific ability tests (i.e. critically thinking, quantitative ability, etc.) depending upon the type of job for which the candidate is being evaluated. ASSESS then provides important information about individuals on a number of personality traits and characteristics which can impact a person's job performance, such as energy level, assertiveness, cooperativeness, and practicality in thinking. ASSESS provides a comprehensive assessment of the strengths and potential liabilities that a candidate is likely to bring to a position and the developmental needs of a current employee within a position. Please refer to the ASSESS Technical Manual
[http://www.bigby.com/assesspreview/content/techmanual.asp].

Personality-Competency Mapping in ASSESS v2

Because of the growing number of organizations that utilize competency models (i.e., job specific models, leadership models, enterprise wide models, etc.) as the strategic basis of their HR processes, it became increasingly evident that there was a need to link assessment results to these models to maintain and leverage a common language throughout HR practices. In fact, over the past 2-3 years, we have adapted ASSESS on a custom basis for select clients so that their assessment reports spoke to how personality characteristics or abilities would help or hinder the display or development of key competencies. As a result, we began receiving requests from many current and potential clients to more directly link personality to their competency model in a cost-effective way. In ASSESS v1, because there was no system in place to efficiently handle this "linking," the process of mapping assessment measures to a client's competencies was both time-intensive and costly. Given the need for this type of more automated and efficient system, the thinking from these early projects was the basis of ASSESS v2 – which includes a new, flexible interface that quickly allows the tailoring of the ASSESS system to produce custom reports that speak directly to an organization's competency model(s).

ASSESS v2 allows trained ASSESS consultants to load competency model(s) directly into the ASSESS system or work with clients using the Strategic Success Modeling process to refurbish a model that is out of date or to quickly build a new model that can be loaded into ASSESS. In either case, with the expenditure of a small amount of effort, the ASSESS system can be tailored to client-specific competency model(s) and produce selection and development reports that speak directly to these models.

The foundation of the ASSESS v2 competency based reports is the relationship between specific personality characteristics and a particular competency. In developing these linkages, the psychologists of Bigby, Havis & Associates maintained a number of guiding concepts based on their prior research:

- There is not a unique relationship between a personality characteristic and only one competency. An individual characteristic, or combination of characteristics can impact multiple competency areas (for example, Assertiveness can impact how someone manages others, as well as how they might work together in a team)
- A personality characteristic can be an asset in relation to one competency and a liability in relation to a different competency. (For example, a high level of Assertiveness can be an asset when trying to influence others, but may become a liability in a team membership environment.)
- More is not always better – for a number of personality characteristics there may be a curvilinear relationship between that characteristic and what is desirable for a particular competency. (For example, both an excessively high level of realistic thinking and a low level of realistic thinking are undesirable to the Visioning competency.)
- Not all competencies are impacted by measurable personality or ability traits. (For example, a person's competence on Business Acumen or Continuous Improvement is not highly impacted by measurable personality traits and is better measured through other methods such as structured interviews or 360-degree feedback.)

Using these guidelines, linkages and ranges were developed based on expert judgment and prior research linking personality characteristics to job and competency success. In developing the final content of ASSESS v2 Competency Reports, BHA psychologists:

- Identified the core contributing characteristics for each competency impacted by the ASSESS personality measures. While there may be many characteristics that potentially have an impact on the display of competencies, only critical characteristics with the most impact were linked to each competency.
- Identified "desirable" and "undesirable" ranges for each characteristic in relation to that competency (displayed graphically by green, yellow and red in selection reports, and green and white for developmental reports).
- Developed selection and development report content for each combination of characteristics that describe the impact (positive or negative) of the profile in relation to the specific competencies.

For example, the competency of Visioning is defined as follows:

Identifying long-term goals and championing the implementation of different or alternative ideas.

People who are competent at visioning generate creative and strategic solutions that can be successfully implemented. They think in innovative ways and support similar thinking in others. They challenge and push the organization to constantly improve and grow.

- *Thinks in innovative and creative ways*
- *Views tactical problems or initiatives from a broad perspective and emphasized solutions that support strategic objectives*
- *Generates new ideas/solutions that can be successfully implemented*
- *Challenges and pushes the organization to constantly improve and grow*
- *Identifies long-term, future goals for the organization and/or the department*
- *Champions his/her ideas to successful implementation*
- *Supports and champions the strategic initiatives of others*

The ASSESS Personality attributes which were mapped to this competency were:

Reflective -- *The tendency to be perceptive, introspective, and philosophical, as opposed to a tendency to be less contemplative*

Realistic Thinking -- *The tendency to be an imaginative, perhaps wishful thinker, as opposed to a more practical and here-and-now thinker*

Serious Minded -- *The tendency to be serious-minded and deliberate in dealing with information/situations*

Assertiveness -- *The tendency to take the initiative with people and make one's presence felt, as opposed to a preference for remaining in the background*

Self-Reliance -- *Preference for relying on oneself and accepting responsibility as opposed to relying on or seeking/accepting support from others*

Work Pace -- *The pace at which one prefers to do things*

Desirable and undesirable ranges for each characteristic were set and the corresponding mapping and a sample of interpretative statements for ASSESS v2 are shown below:

Personality Implications for Visioning

Visioning

Identifying long-term goals and championing the implementation of different or alternative ideas.

Reflective
Realistic
Serious-Minded, Restrained
Assertiveness
Self-Reliance
Work Pace

Comments:

Helps

- His balance of practicality versus openness to new and creative ideas should help him to develop innovative strategies that are useful and workable.

- Because his level of restraint is somewhat low, he should be capable of committing quickly to a new idea or course of direction. He should be willing to take some risk to move the business forward.

- His self-reliant style will help him to show initiative in championing his (and others') ideas and vision.

Hinders

- Because of his non-reflective style, he may not consider the issues as thoughtfully and broadly as he should. Especially in new or changing circumstances, he may not perceive important subtleties of the situation. His focus may be too narrow.

- His low assertiveness may interfere with his ability to forcefully and effectively champion ideas. For this reason, he may have difficulty building the organizational support or buy-in to transform ideas into action.

- His slow work pace may hinder his ability to generate and champion ideas.

Please see links provided in the Appendix portion of this paper for sample selection and development competency reports.

The ASSESS Strategic Success Modeling Library

At the core of the ASSESS v2 system is a library of competencies from which client-specific competency models may be built. In developing the competency library, we reviewed research on job success. Also, BHA in its own consulting practice has had much experience in developing competency models for numerous client organizations across a variety of roles and used this expertise in the development of the competency library. The resulting ASSESS Strategic Success Model library is a consolidation and integration of the important concepts across many existing models, developed with the business and organizational perspective we have gained over the years from helping clients with their strategic hiring and employee development.

The ASSESS Strategic Success Model library consists of 38 competencies grouped into three general areas: Thinking, Working and Relating. Company-specific success models or success models tailored to a job or job class typically can be constructed from 10-15 of these competencies with some drawn from each general area. The ASSESS SSM Competencies are provided below.

Thinking	Working	Relating
Visioning or Innovation	Planning And Organizing	Teamwork and Collaboration
In-Depth Problem Solving And Analysis or Decisive Judgment	Driving For Results or Delivering Results	Influencing And Persuading or Persuading to Buy
Championing Change or Adapting to Change	Quality Focus or Continuous Improvement or Policies, Processes And Procedures	Managing Others or Team Leadership
Courage of Convictions	Customer Focus or Customer Service	Coaching And Developing Others
Business Acumen	Integrity	Motivating Others
Functional Acumen	Resilience	Organizational Savvy or Relationship Management
	Safety	Negotiation or Conflict Management
	Continuous Learning	Interpersonal Communication
		Written Communication
		Presentation Skills
		Meeting Leadership or Meeting Contribution
		Respecting Diversity

The ASSESS SSM library was intentionally designed to account for and accommodate the differing levels of competence that might be expected for different levels of job responsibilities within an organization.   For example, there are a number of competencies that maintain the same core components as the paired competency, but also include components appropriate and expected at a higher level in the organization. For example, the competency "Visioning" is a higher order competency than "Innovation." At a professional level position, it may be important for a person to be innovative in order to perform their job more effectively. At a higher level in the organization it will be important that the individual can effectively transform this innovation into a clear vision for the organization and champion or communicate this vision to others. Other examples of this include "Adapting to Change or Championing Change," "Delivering Results or Driving for Results," "Customer Service or Customer Focus," "Relationship Management or Organizational Savvy," and "Meeting Leadership or Meeting Contribution."

In addition, there are other competencies that were paired together because of their relationship to each other. In these instances, the general concept between the competencies is similar, but how this concept is operationalized on the job might be different. Examples of these include: "Managing Others or Team Leadership," "Influencing and Persuading or Persuading to Buy," "Quality Focus or Continuous Improvement or Policies, Processes and Procedures," and "Negotiation or Conflict Management."

As described in the prior section (Personality-Competency Mapping in ASSESS v2) BHA psychologists have developed the linkage between the ASSESS personality characteristics and Strategic Success Modeling competencies. In most situations, the standard SSM library can be used or quickly adapted to fit all or most of the competencies in the organization's model. For those circumstances where unique competencies are required to define job success, new mappings can be developed quickly and uploaded into the system. Afterwards, the ASSESS system will produce selection and development reports based on personality assessment results, and these reports will speak directly to the organization-specific or role-specific competency model.

The Strategic Success Competency Modeling Process

In response to the growing need for an efficient and effective process to develop competency models that can be easily integrated into employee selection and development programs, the industrial/organizational psychologists and the technologists of Bigby, Havis & Associates developed ASSESS Strategic Success Modeling (SSM). SSM is a software-aided process designed to define the competencies important for success in a given job.

If a model has not been developed or the current model is out-of-date and needs revising, a new or revised model can be developed quickly and easily using the Strategic Success Model building process.

ASSESS Strategic Success Modeling is a process by which an organization, with the facilitation of an SSM consultant, can easily develop a new competency model for a position or group of positions, or can update an existing, outdated model. Model building is initiated with a card-sort process that is facilitated with competency cards and sorting pads for participants. The overall process is facilitated with computer software that which is easily downloaded from the ASSESS Distributor website.

If a model has been previously developed and is current, no formal SSM process is required. The SSM consultant, with input from Human Resources or key managers, can map the existing model directly to ASSESS using a combination of the SSM software and the ASSESS distributor website.

Developing an effective competency model requires an analysis of the critical components of a job or set of jobs in relation to the goals of the organization. For a competency model to be useful and accepted within the organization, there must be:

- Alignment with the business strategy
- Involvement of key stakeholders
- Content that is straightforward and clear
- Integration into HR practices
- Communication of the model
- Continued refinement as the work environment changes

After identifying and discussing the job/jobs and establishing the scope for the competency model, an initial draft of the model is constructed from the SSM competency library using three exercises referred to as: 'The Pairs,' 'Singles,' and 'Ins.'

- The Pairs exercise guides participants to eliminate at least one of the paired competencies based on the level of competence necessary
- The Singles exercise guides participants to eliminate obviously irrelevant competencies from the non-paired list
- The Ins exercise guides participants to carefully evaluate the competencies remaining after the first two exercises and select the competencies to include in the final model. At this time, necessary additions outside the SSM library are also made.

These exercises incorporate individual exercises as well as group discussions and consensus. After participants verify the model as developed to this point, the modeling building process concludes by a revisit of job discussion notes to detect if any competencies that may have been missed should be added.

After this initial draft is completed, it is refined and adjusted to fit the needs of the organization. As a final check, job discussion notes are again revisited and reflected against the model to make final additions or changes. Final adjustments are made to make the model as organization-specific as possible. These adjustments can include changing the titles of the competencies, rewording the definitions and the behaviors, and changing the order in which the competencies are to be displayed.

A draft competency-based interview protocol is automatically generated by the SSM software and the ASSESS distributor website once the model is complete. The participants, the consultant and/or key members of Human Resources refine this draft following good interview construction guidance provided by the consultant and the software. System-provided interview questions are edited to fit the organization and new interview questions are written to address competencies not mapped to ASSESS.

As a result of the ASSESS Strategic Success Modeling process, an organization will have a tailored competency model aligned with the organizations' business objectives. This model is then integrated into the ASSESS v2 Expert System to provide competency-based assessment reports for the selection of candidates and development of employees.

On-going Research

Since ASSESSv2 and the supporting SSM software were launched at the beginning of 2003, Bigby, Havis, & Associates has initiated on-going validation research and has begun refining the personality-competency linkages. In addition, international studies are currently underway in Brazil, Costa Rica, Columbia, Ecuador, Hungary, Indonesia, Korea, Mexico, Netherlands, Portugal, and the United Kingdom.

References

Lucia, A.D. and Lepsinger, R. (1999). The Art and Science of Competency Models: Pinpointing Critical Success Factors in Organizations. Jossey-Bass.

McClelland, D.C. (1973) "Testing for Competence Rather and for 'Intelligence.'" American Psychologist, 28(1), pp. 1-14.

Spencer, L M. and Spencer, S.M. (1993). Competence at Work: Models for Superior Performance, New York: J. Wiley & Sons.

Appendix

Sample ASSESSv2 Selection Report – http://www.bigby.com/systems/assessv2/system/reports/compselrep.asp?Preview=Admin&ModelId=2

Sample ASSESSv2 Development Report – http://www.bigby.com/systems/assessv2/system/reports/compdevrep.asp?Preview=Admin&ModelId=2