What is the Predictive Index® (PI)?

The PI® is a proven, copyrighted management tool for objectively predicting, describing and measuring the work behavior and potential of individuals and groups at all organizational levels. Efficient and reliable, it provides in-depth assessment of performance drives, management styles, capabilities, potential, interests and motivation. An additional and unique measurement provided by the PI offers keen insight into the effects of job demands, leadership styles, and organization culture on individual performance.

More than 100,000 managers and executives have attended Predictive Index® Management Workshops. The PI Survey Form, which is available in more than 63 languages, has been administered millions of times and is widely recognized as a superior assessment tool.

How can the business benefit from using the Predictive Index?

The information obtained from the PI can be applied to improve many areas of business, including:

- **Recruitment/Selection**— Many candidates. One job. PI can help make sure the right decision is made, reducing costly turnover.
- **Teamwork**— A successful business depends on strong overall teams, but getting people to work as a team is a tremendous challenge. The PI can be used to help you put together balanced teams and make sure each player has the skills and training needed to contribute to team success.
- **Leadership**— In today's business environment, leaders need to articulate a clear vision and inspire others to follow this course. The PI can help identify and develop leaders, enhancing leadership styles and improving communication.
- **Management**— The best managers are made, not born. With the PI, managers are better equipped with the insight they need to communicate with employees to get results.
- **Job Satisfaction**— Since job satisfaction and customer satisfaction are closely entwined, it is more important than ever to have the right person in the right job. PI can help make sure that employee morale and commitment stay high.
- **Productivity**— Time is money and the company that works most efficiently stands to grow most profitably. With PI, managers know more about the way people work and how to maximize productivity.
- **Strategic Planning**— Where is the company headed? How will you get there? Who will drive the initiatives? PI can show you how to match individual behavioral skills and future company need.

What is the purpose of PI?

PI serves two main purposes.

First, PI provides objective, reliable, and valid information for decision makers to assist them in developing motivated, productive organizations of talented people. With PI, managers gain a much clearer understanding of the motivating drives of people. With that information in hand, managers trained in PI can better understand how an individual will respond to and perform his or her job responsibilities. Managers trained in PI can best position a person for success and better support and develop each individual in his or her charge.

Second, the PI Management Workshop, in which managers learn to understand and apply the PI information, is a highly effective forum for developing the leadership skills of those participating. With that experience and the knowledge gained through PI, managers are better prepared to provide appropriate and effective leadership to their teams.

Who should use the PI?

Selected managers are trained by PI Europe to interpret results of the PI in an executive training workshop conducted by an experienced consultant. Participants are taught how to read and analyze the information provided by the PI to understand and manage their companies more effectively. PI Worldwide offers continuing support and consultation to managers trained in the use of the PI.

How is the PI Administered?

The PI is based on a simple, questionnaire that can generally be completed in 10 to 15 minutes. Results are quickly tabulated on site. The specific instructions for administering PI are attached. In general, it is administered in a relatively quiet, comfortable setting. If administered to groups, it should be monitored to assure that each individual completes his or her own form without influence from other people.

Who should be trained in PI and why?

Those managers who have direct responsibility for hiring, developing, motivating and coaching people at all levels of the organization would benefit greatly by using PI. The PI information provides input to those managers that can be used in every decision they make regarding job and organization design, and in the selection, development, coaching, and promoting of individuals.

In addition, the Human Resource professionals who work most closely with the line managers in these decisions would also benefit from the PI information. In this way, those professionals are better able to partner with and support the managers in making those critical decisions. Having both the line managers and HR professionals "reading from the same page" greatly enhances the effectiveness and productivity of the recruitment, selection and development processes.

What does PI measure?

There are four primary and two resultant factors that make up the Predictive Index. The four primary factors are called Factor A, Factor B, Factor C, and Factor D; and the resultant factors are referred to as Factor M and Factor E. Each describes basic drives and motivations that all humans have, and each is represented by a continuum of scores.

- **Factor A** (Dominance) measures the drive to exert one's influence over people and events.
- **Factor B** (Extroversion) measures the drive for social interaction with other people.
- **Factor C** (Patience) measures the intensity of a person's pace.
- **Factor D** (Formality) measures the drive to conform to formal rules and structure.
- **Factor M** is a measure of a person's stamina.
- **Factor E** measures the extent to which the individual is either subjective or objective with respect to judgment and decision-making.

These factors are then investigated within the context of three elements: the Self, the Self-Concept, and the Synthesis. The Self is a measure of an individual's basic pattern of drives and behavior—a measure of those drives that are most motivating and those behaviors that are most natural for that individual. The Self-Concept measures the environmental expectations or demands that a person feels, which may or may not fit with his or her natural tendencies. The Synthesis, a mathematical combination of the Self and Self-Concept scores, is designed to measure how that person is actually behaving in the current environment.

Does the PI measure cognitive ability?

The PI is a behavioral assessment tool that does not measure cognitive ability. Although cognitive ability is an important aspect of the individual to consider for many jobs, it is inappropriate to use cognitive ability as a blanket selection tool for all jobs. For this reason, the publishers of the PI have opted to maintain the PI as a tool that can be safely and appropriately used universally.

What is the reading level of the PI? What if someone cannot read at that level?

The PI has an eighth-grade reading level. The reading level of an individual taking the PI should affect the PI in only one way (the M Factor), and in a way expected and predicted by the theory behind the PI. The PI checklist may be understood as a symbolic environment composed of 172 varied, symbolic stimuli, responses to which provide information about behavior and motivation in the real environment. If someone selects fewer words from the checklist, either due to not knowing what some words mean or thinking that those words do not describe him or her or what is expected of him or her, the person is simply reacting to the PI environment as he or she would react in the actual workplace environment. Furthermore, it is important to remember that the PI measures natural drives and behaviors – not education level, not intelligence, and not socio-economic status.

What support is available to validate the PI's relationship to performance for specific jobs?

For any and all of our clients, PI Worldwide, the publisher of the Predictive Index, in conjunction with Augur Inc. will guide and perform criterion-related validity studies free of charge. There is no limit to the number of studies that can be performed, though it is important that there must be a sufficient number of employees currently performing the job, and adequate measures of their job performance. These studies are performed by the Director of Research at PI Worldwide, who will answer any questions about conducting these studies, though your PI Consultant at Augur Inc. is the first person with whom you should speak about validity studies.

What about the EEOC guidelines on the use of selection procedure – is the PI safe?

The United States government's Equal Employment Opportunity Commission (EEOC) has published and vigorously upheld "Uniform Guidelines for Employee Selection Procedures." These guidelines, which all U.S. businesses are required to meet, address the conduct of criterion-related validity studies. They were designed to protect individuals belonging to "protected classes" from discriminatory employment decisions based on arbitrary methods. Because of these guidelines, many U.S. employers are understandably wary of products that can help them make employment decisions, such as the PI. Our nearly three thousand clients, however, are comforted by these facts:

(1) As demonstrated by our criterion-related validity studies, the PI's results are not arbitrary.
(2) In over 40 years, use of the PI has never been successfully challenged in court.
(3) At any time, as part of the service contract, a client can commission us to perform, free of charge, a criterion-related validity study that uses their own employees and performance measures.

What support will you offer if we face litigation attacking our use of PI and its validity?

In response to challenges attacking the validity or reliability of Predictive Index, PI Worldwide will provide copies of its research reports on the validity and reliability of PI, and, if necessary, will provide access to its research staff to answer any questions or challenges.

What protection does the PI have on the issue of adverse impact?

We have performed research to determine whether the Predictive Index discriminates against protected classes. In a study conducted by Harvard psychologist Dr. Wolman, the PI was analyzed to determine whether men and women tended to score differently on the PI, and whether African-Americans, Hispanics, and Caucasians tended to score differently on the PI. The analyses showed that neither sex nor race affected PI scores. In a more recent study by Dr. Wendi Everton, the PI was analyzed to determine whether it produces adverse impact based on age. This study showed that for all PI factors, people over 40 (the protected class) had PI patterns that were no different than people younger than 40. In short, the Predictive Index does not have an adverse impact on these protected classes.

Is the PI a valid tool for management selection decisions and/or the development of managers?

The use of the PI with managers and executives has been a focus of both formal and informal study over many years. In terms of formal research, the studies mentioned above that investigated the PI's general reliability and validity contained individuals from all levels within organizations, including managers. Furthermore, our library of research now includes more than 40 criterion-related validity studies for a variety of managerial positions. These studies unequivocally show that the PI is related to the performance of managers at all levels of organizations.

What do "reliability" and "validity" mean, and is the PI reliable and valid?

These words have very specific and specialized meanings in psychometrics, the branch of psychology that deals with testing and assessment. In plain English, "reliability" and "validity" are two approaches to judging the usefulness of a psychological measure like the PI. They can be defined in this way:

<u>Reliability:</u> This refers to the **consistency or stability of a measure**. If the concept being measured is assumed to be consistent, such as a personality trait, then the measure should yield similar results if the same person responds to it a number of times. If the concept being measured is assumed to be inconsistent, such as mood, then the measure should yield dissimilar results if a person completes it several times.

One way to estimate reliability is by computing the measure's "test-retest reliability". This is accomplished by giving the same people the same measure at two different times and statistically comparing the two scores. An independent study by Dr. J. Christopher Perry and Dr. Philip W. Lavori describes the excellent test-retest reliability of the PI, especially of the Self factors, as would be expected since these measure natural behaviors.

A second way to estimate reliability is by computing the measure's "internal consistency reliability". This is accomplished by determining whether items that measure the same concept are statistically related. If, for example, the Self A factor represents one construct, then the words that are counted and scored on that factor concept should be related. For example, one would ask, are the 17 words on the PI that measure the Self A factor statistically related to each other?

There are two general ways to compute internal consistency reliability, and the PI has impressively demonstrated such reliability using both methods. Split-half reliability was investigated in the Perry and Lavori study mentioned above, and Cronbach's alpha was investigated in a study by Dr. Richard Wolman and James Pratt ("A Normative Reliability Investigation of the Predictive Index Organization Survey Checklist"). Both studies demonstrated that the PI possesses strong internal consistency reliability.

<u>Validity:</u> While reliability refers to the consistency of a measure, validity refers to the **accuracy of a measure**. A measure is valid if it actually measures what it purports to measure. The Predictive Index clearly does.

Construct validity is demonstrated when a measure is statistically compared with another measure of similar and/or different concepts. To be successful, the comparison measure must have been soundly constructed and be generally accepted. Such research has been successfully performed twice, in the Perry and Lavori study and in a more recent 1996 study by Wolman and Pratt ("The Construct Validity of Predictive Index and 16PF"). Both studies compared the PI to Cattell's 16PF (a well-respected and well-researched tool, though not developed for use in business).

A construct validity study involves looking at patterns of correlations. Correlations are mathematical measures that can identify the presence and strength of the relationship between two things. A pattern should emerge that meets the following expectations:

- For what is referred to as "**convergent validity**", factors that are defined in a similar way by both the PI and the 16PF should prove to be significantly statistically related (e.g., PI's extroversion factor and the 16PF extroversion factor).

- For "**divergent validity**", factors that are defined in a dissimilar way on the PI and the 16PF should prove to be mathematically unrelated (e.g., PI's extroversion factor and the 16PF emotional stability factor).

In both studies, the PI very successfully demonstrated construct validity: the factors we assume measure similar constructs were mathematically related, and those we assume measure different constructs were not related.

Criterion-related validity is demonstrated when a measure is statistically compared with behaviors it claims to predict. We say that the PI is related to, and can predict, behaviors in the workplace. Criterion-related validity studies objectively show whether these relationships exist, and when they do, the nature of these relationships. Since 1972 the PI has been investigated in over 300 criterion-related validity studies, for a variety of jobs in a variety of industries. The PI has consistently been shown to be job-related. **This body of evidence overwhelmingly demonstrates that the PI is related to job behaviors.**

For additional questions about the PI and its applications, please contact your PI Europe associate.

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