The Predictive Power of Soft Skills for Labor Outcomes: A Literature Review

Key Findings

- Evidence on the predictive validity of soft skills for labor market outcomes is limited in scope, geography, skill type, and measurement approach.

- With this limited evidence, no single soft skill measurement approach is found to reliably predict outcomes across settings.

- While some skill types demonstrate more consistent links to labor market outcomes, the evidence remains limited, relying on only a handful of studies.

POLICY BRIEF

Soft skills are considered important for labor market success, but it is unclear which measurement approaches and skill types best predict future labor outcomes. The existing evidence is limited and complex, but overall, soft skill measures show only a weak connection to labor market success.

Soft Skills Measurement

Soft skills — abilities, traits and attitudes involved in managing emotions, developing relationships, setting goals, and making decisions — are believed to be important contributors to labor market success.[1] Yet, there are questions about how to measure soft skills, and whether these measures can reliably predict long-term labor outcomes such as employment or earnings. If a soft skill measure is tied to long-term outcomes such as employment or earnings, it can serve as a valuable tool for identifying which skills matter most for training, designing and assessing the effectiveness of policies and programs, and guiding selection in areas such as college admissions, job aptitude tests, hiring, targeting programs, and offering loans or capital.

Much of the existing research examines the link between soft skill measures and outcomes at the same point in time, which addresses the quality of the measure but not (a) whether these measures can predict future outcomes, and (b) whether changes in measures predict changes in outcomes.To better understand the state of evidence on the predictive validity of soft skill measures on labor market outcomes, we reviewed 50 studies that met our selection criteria. This brief shares the findings, concluding with lessons for researchers and policymakers.

Review Methodology

The findings presented here are based on 50 studies that empirically investigated the relationship between soft skill measures and labor market outcomes. To be included, the soft skill measure had to be collected prior to measurement of the outcome. Our search process included a primary search of electronic platforms, and a complementary search consisting of a forward citation search and contacting experts for recommendations. Papers were eligible if the abstracts included the term "validity" and at least one keyword related to methodology, soft skills, and labor market outcomes. We also included adjacent concepts and soft skill terms, such as personality traits, beliefs, preferences, and attitudes to ensure comprehensive coverage of relevant studies.

Key Findings

Evidence on the relationship between soft skills and labor market outcomes is limited in scope, geography, skill type, and measurement approach.

Only one of the included studies was conducted in a lower-middle-income country, while the rest took place in high-income countries, primarily in Europe and North America. In terms of skill types, the Big Five personality traits were the most prevalent in the literature, followed by measures of positive self-concept, aspirations, and motivations. As there is debate as to whether the Big Five personality traits are mutable, the literature would benefit from additional research on socio-emotional skills and mindsets. Notably, much of this research focused on highly specific sub-concepts rather than broader, global measures. Similarly, studies on interpersonal skills encompassed a diverse set of related abilities, making it difficult to isolate the impact of specific skills on labor market outcomes. Over 70 percent of the reviewed measures used self-reports, with a small sample utilizing observer reports, task-based performance measures or artifact coding.

No single soft skill measurement approach reliably predicts outcomes across different settings.

A fundamental question in soft skill assessment is whether to use self-reports, observer reports, or task-based performance measures, each of which has distinct strengths and limitations. To explore this, we focused on within-study comparisons of measurement approaches assessing the same skill type and identified only four studies that allowed for direct comparison. Three of these studies examined Big Five personality traits and found that observer reports were more strongly correlated with future labor market outcomes than self-reports. In contrast, the fourth study found that a self-report measure showed a stronger correlation with future job performance. The limited number of studies underscores the need for further research to determine how measurement choice influences observed relationships between soft skills and labor outcomes.

While some skill types demonstrate more consistent links to labor market outcomes, the evidence remains limited, relying on only a handful of studies.

Skills such as aspirations, higher-order thinking, grit, and responsibility have shown relatively stronger associations with labor market success, but the small number of studies examining each skill restricts the generalizability and robustness of these findings. Furthermore, these studies vary widely in their populations, industries, occupations, and job levels, making it difficult to draw broad conclusions or identify patterns that hold across different contexts. Table 1 lists the soft skills examined in the review and the number found to be predictive of labor market outcomes.

Table 1: Predictive Strength of Soft Skill Types for Labor Outcomes

Soft Skill	Predictive Relationship/Total
Conscientiousness*	10/34
Openness*	2/35
Neuroticism*	7/30
Agreeableness*	6/24
Extraversion*	3/25
Interpersonal	17/27
Positive Self-Concept, Aspirations & Motivations	8/16
Responsibility	13/16
Higher Order Thinking	6/10
Stress & Anxiety	3/9
Emotionality	3/9
Grit & Task Persistance	6/8

* Big Five personality traits
The total number represents individual skill types by sample, measurement approach and labor outcome, not studies. For example, one study used two measurement approaches to assess the impact of responsibility on two outcomes.

Lessons for Researchers, Practitioners and Policymakers

The current evidence does not justify the use of any specific soft skill measures.

Without stronger evidence on which measures best capture soft skills and predict labor outcomes, policymakers and practitioners should be cautious in adopting any single approach for workforce assessments, interventions or monitoring and evaluation efforts, and should consider using a range of measures and conducting ongoing evaluations to assess their predictive validity in specific contexts.

Research should prioritize generating more representative evidence and identifying causal mechanisms.

There is limited evidence on soft skill measures in LMIC contexts and even less evidence on the predictive validity of measures. Expanding research with rigorous, cross-method comparisons in diverse settings is essential to developing reliable and valid soft skill measurement tools. In addition to the issue of measurement, there is need for more investigation into whether there is a causal association between soft skills and labor market outcomes. Researchers should prioritize studies that aim to establish causal links. Randomized controlled trials (RCTs) can help generate exogenous variation in soft skills and offer more reliable estimates of their predictive validity. This approach is critical to advancing the field and providing clearer guidance for practitioners and policymakers.

Predictive validity analysis should be encouraged as standard practice.

Predictive validity analysis should be integrated into routine data collection and evaluation practices. Though data from program evaluations and administrative data is often available to assess predictive validity, these results are rarely reported. Examining this untapped resource could prove valuable. By making predictive validity analysis as standard as reporting psychometric properties like reliability, soft skill measurement can become more rigorous, transparent, and reliable.

1 Almlund, M., Duckworth, A. L., Heckman, J., Kautz, T. (2011). Personality psychology and economics. In Handbook of economics of education (Vol. 4). New York: Elsevier. Borghans, Lex, Angela L. Duckworth, James J. Heckman, and Bas ter Weel. 2008. The Economics and Psychology of Personality Traits. Journal of Human Resources, 43(4): 972-1059. Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. Labour Economics, 19(4), 451–464.