

Cognitive and non-cognitive skills, social networks, and labor market outcomes in Bangladesh

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Motivation

Cognitive skills and personality traits have an effect on wages, networks (cognitive ability affects network size), and job search methods (non-cognitive skills influence job search effort)

Research Questions

- 1) Do different skills predict the use of different hiring channels?
- 2) Do returns to skills vary by hiring channel?
- 3) Can firm characteristics help explain differential returns to skills?

Conceptual Framework

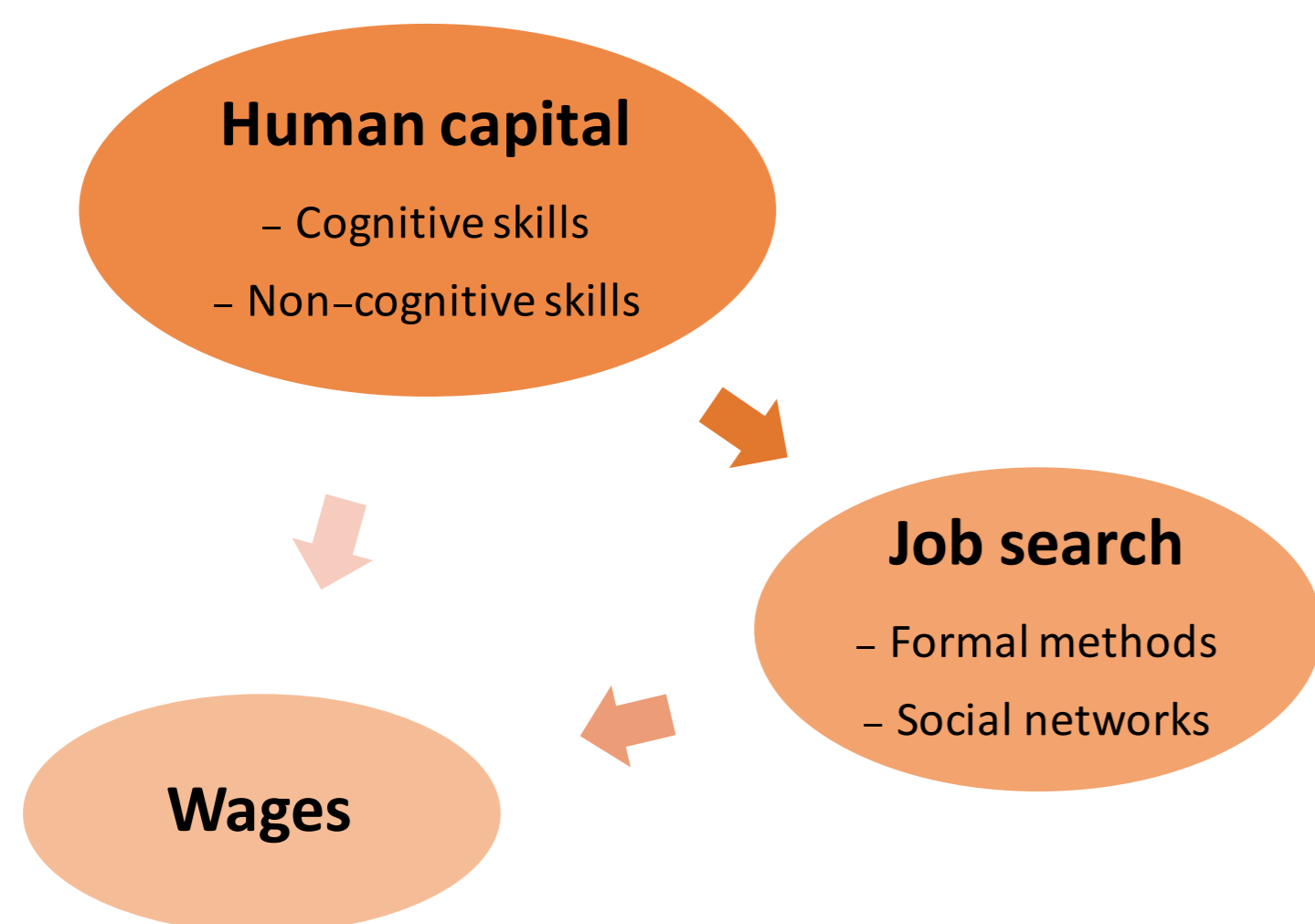


Fig. 1: Conceptual framework

Methodology

1. Returns to skills and hiring channels

- Endogenous switching model

$$\ln w_{ij}^F = \beta_0^F + \beta_{employee}^F A_i + \beta_{firm}^F B_j + \epsilon_{ij}^F \quad [1]$$

$$\ln w_{ij}^N = \beta_0^N + \beta_{employee}^N A_i + \beta_{firm}^N B_j + \epsilon_{ij}^N \quad [2]$$

$$NET_{ij} = \begin{cases} 1 & \text{if } NET_{ij}^* > 0 \\ 0 & \text{if not} \end{cases} \quad [3]$$

2. Determinants of within-firm wage gap

- Estimate [1] and [2] with firm fixed effects
- Regress firm characteristics on difference in firm fixed effects

Data

- 2012 Bangladesh enterprise-base skills survey
- Matched employer employee data set
- Our sample: Men with non-missing skills (4,678 workers and 487 firms)

Results

1) Skills and the use of hiring channels

Estimate the effect of different types of skills on using formal versus social network hiring channels

- Cognitive skills (reading score) increase probability of formal channel hiring
- Non-cognitive skills affect probability of having found work via network types:
 - Strong ties: Hiring through family \uparrow with agreeableness and grit; through friends \uparrow with conscientiousness and hostile attribution bias; it \downarrow with grit
 - Weak ties: Hiring through village, politics and school connections \downarrow with hostile attribution bias

Results based on Bangladesh ESS 2012, for 487 firms and 4,4678 workers.

2) Returns to skills by hiring channel

Take into account the indirect effects of the choice of hiring channels on wages

Probability of being hired through networks

Returns for workers hired through **formal** channels

Education	-0.033 (0.025)
Education squared	0.003*** (0.001)
Extraversion	0.035*** (0.010)
Hostile Attribution bias	-0.025* (0.014)
Grit	-0.034** (0.016)

Returns for workers hired through **social networks**

Education	-0.024*** (0.010)
Education squared	0.003*** (0.001)
Emotional Stability	0.030*** (0.012)

Fig.2: Returns to different skills by hiring channel. Results based on Bangladesh ESS 2012, for 487 firms and 4,678 workers.

3) Determinants of within-firm wage gap

Explore demand side preferences for specific skills by decomposing the within-firm formal-network wage gap

- Employers were asked for importance of skills in their firms' workforce and in hiring decisions
- Within-firm wage gap between formal and network hires \uparrow with value firms place on academic performance and communication skills and \downarrow with importance given to hiring interview

Results based on Bangladesh ESS 2012, for 171 firms and 2,525 workers.

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