Opportunities and challenges of skills development
– why do we need evidence-based decisions?

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The structure of presentation

Why is the industrial skills development demanded?
  • **The node** to link and achieve various developmental goals

Why does skills gap occur?
  • “Live together but in different worlds” – Why is **the coordination among stakeholders** so difficult?
  • **Twin gaps** of supplies and demands in the labor market
  • **Fluidity and multi-dimensionality** of targets and contents

Who demands for TVET?
  • The skilled workers are necessary but should they be trained at TVET?

Any impact of COVID on skills development?

What does it mean to be competent at work?
  • Do we really know the exact contents of “skills” to be developed?
  • The latest global discussion on **the concept of “knowledge”**
What causes the skills gap?

“Live together but in the different worlds”

Our national plan is to be a middle income country by 2030. To achieve it, we need more high skilled workers in ZZ industry.

We invest in Country A but cannot find competent people to be local managers.

We need workers who can work accurately and efficiently.

Our school has XX major and the graduates will have specialist certificate.

I want to be an IT engineer

I will be a fashion designer!
Twin gaps of supplies and demands of skills in the labor market

**Supply side**

- **Educator/Trainer**
  - Skills they teach
- **Workers**
  - Actual skills they have
  - Self-efficacy, motivation
  - Self-evaluation of skills

**Demand side**

- **Employer**
  - Skills they expect to workers

*Supply–Demand Gap (1)*

*Supply–Demand Gap (2)*
First thing we need to do is to diagnose the causes and nature of skills gap first.

**Are there any system-level deficits?**
- Asymmetry of information on employment → **Matching job opportunities**
- The fast pace of change of the employers’ skills needs → **Routinized needs assessment and enhanced flexibility and responsiveness of the training system**
- Legal and financial framework to promote skills development does not exist or malfunctional → **Skills development act, Occupational standard, accreditation, skills development fund, subsidies**
- Low quality of training contents and delivery → **Improvement of training materials and trainers**

**What are the contents of skills which cause the mismatch?**
- Abilities to conduct specific tasks → **Vocational/operational skills**
- Personalities and attitude? → **Noncognitive skills**
- Basic cognition which enables continuous learning? → **Cognitive skills**
- Educational certificate → **Expansion of the school system**
### Types of intervention to promote skills development and actors’ involvement

<table>
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<th>Objectives</th>
<th>Interventions</th>
<th>Role of government</th>
<th>Role of employers</th>
<th>Role of training institutions</th>
<th>Role of learners/ workers</th>
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<td><strong>Enhanced coordination among actors</strong></td>
<td>Public-private partnership (PPP) to fill the supply-demand gaps</td>
<td>• To establish the coordination agency for skills development, involving multiple government bodies, industries, and training institutions</td>
<td>• To enhance the partnership for various forms of skills development, such as in-firm training, apprenticeship, and public and private TVET</td>
<td>• Modernization of the apprenticeship system</td>
<td>• To bridge the training gaps between formal and informal sectors</td>
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<td><strong>Resource utilization for effective skills development system</strong></td>
<td>Establishment of the financial incentive mechanism to vitalize the training market</td>
<td>• To introduce the levy for skills development</td>
<td>• To provide opportunities of skills development, both on-site and off-site, for employees utilizing the subsidies and loans from the government (SMEs)</td>
<td>• To provide matching funds to the government subsidies (large companies)</td>
<td>• Receive trainees from the companies</td>
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<td><strong>Formation of quality skilled workers</strong></td>
<td>Skills assessment and certification based on the problem solving skills required in the world of work</td>
<td>• Establishing the occupation standard for respective industries and levels of skills</td>
<td>• To input the needs of employers in developing the occupation standard</td>
<td>• To provide education and training along with the occupation standard</td>
<td>• To demand for loans and scholarships for continuous learning</td>
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<td><strong>Strengthening the practical training</strong></td>
<td>Direct provision of TVET to supplement the training by private TVET and employers</td>
<td>• Matching the TVET interns with the companies through the skills development coordination agency</td>
<td>• To accept interns (practical trainees) from TVET</td>
<td>• Finding companies at which students complete intern</td>
<td>• Make the info of students and graduates available for recruiters</td>
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<td><strong>Promotion of employment</strong></td>
<td>Matching recruiters and job searchers</td>
<td>• Establishment of an employment agency</td>
<td>• Open recruitment (reduce closed recruitment)</td>
<td>• Proactive job search</td>
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**Direct provision of TVET is only a minor part of the government’s role in skills development**
Who demand for the government-led skills development most?

• The recent neo-liberal conception of skills development demands the government more coordinative role than direct involvement in training provision
  – To mitigate the asymmetry of information between the supply and demand
  – To incentivize the skills development by reducing the financial and system barriers

• Large companies (e.g. factories of the global multinationals) have their own priorities and strategies of workers’ skills development and promotion driven by their own internal labor market

• TVET demands are higher among SMEs and informal sectors which do not have the capacity to internalize their workers’ training

• Linkage between the plans for industrial development and skills development is a key
Horizontal and vertical skills mismatches

Does the increased investment in TVET solve the problem of skills mismatch??

1. The government planned the resource allocation among different education levels mistakenly → created many workers with “Over-education” and “Under-education” ← Vertical mismatch

2. There are significant gaps of perception between the employers and the trainers/educators, but demand side data is often unavailable → The skills development plans are made without demand side information ← Horizontal mismatch
The constructs of knowledge

**Socio-emotional skills**
- interpersonal skills
- team work
- autonomous activities

**Meta-cognitive skills**
- Problem-solving, discovery, creativity
- Logical and critical thinking
- Adaptive learning

**Cognitive skills**
- Language skills
- Mathematical skills
- Information skills
- Technical skills

**Noncognitive skills**

Cognitive skills can explain only a minor part of the effects of education on labor market outcomes such as employment or income (Bowles et al. 2001)

Skills assessed as the competencies developed at school

The domain considered as work-related skills conventionally

Problem-solving at work ≠ getting high score in exams
When, where, and what kind of skills do they need to develop?

Learning is a lifelong process

Skills/Knowledge specific to the workplace

Pre-employment

TVET

Higher ed
Secondary
Primary

Adult literacy

General skills/knowledge

Upskilling after employment

Off-JT (Off-site)

Off-JT (on-site)

OJT

Apprenticeship

Source: author
COVID and the new demands for skills development

• Vocational training without contact?
  – Increased inequality of learning opportunities ↩ aggravation of existing problem
    • Lack of access to school, alternative tools of learning, or learning support
  – Restriction of practice-based training ↩ New challenge
    • Despite TVET reforms to increase relevance, a large part of the practical training and internship were suspended

• Changed mode of business operation
  – Enhanced transfer of goods without human interactions
    ↩ More reliance on IT and indirect communication skills
Problem-solving skills in the era of with-COVID

- Performance evaluation will be more outcome-oriented than sharing the process.
- Attentive and accurate work without visible outcomes will not appeal to the supervisor.
- Capacities to verbalize (= express in written or spoken words instead of actions or feeling) the work-related concerns and achievements will become more important.
Skills and Knowledge for Youth (SKY) project

We can **diagnose** the skills of workers from multiple angles

- Our module provides pictures about the complex relationships among cognitive, non-cognitive (behavioral), and vocational skills
- We can compare the perspectives of different stakeholders and **identify the exact nature of gaps**
- We can provide **evidence-based proposals** for improving the skills development plan
More information about us

Website
https://skills-for-development.com

SKY Newsletters (biweekly)

Twitter
@SKYproject_NU