A Labor Demand Study of Industry Sectors In Indonesia

by
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Outline

• Labor Force Situation in Indonesia
• Indonesia’s Skilled Labor Challenges
• Labor Force Analysis
• Skill Needs Assessment
• Development Strategy
• Conclusion
Labor Force Situation in Indonesia in February 2017

Working Age Population (190.59 million)
  - economically active population (131.55 million)
    - Working People (124.54 million)
    - Unemployment People (7.01 million)
  - Not in Labor Force (59.04 million)
Indonesia’s Skilled Labor Challenges

In 2016,

• Indonesia has a **total workforce** of **122 million** people, of which **7.5 million** are unemployed.

• **42 %** of the workforce **are elementary school graduates**, 

• **26 %** are **junior high school graduates**, and

• **22 %** are **senior high school graduates**.

• only **10 %** are **graduated from university**.
Labor Force Analysis

• Trend of Labor Force
Labor Force Analysis

• Analysis Based on Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Economically Active</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Working</td>
<td>Unemployment</td>
<td>Total</td>
</tr>
<tr>
<td>15 - 19</td>
<td>5,771,006</td>
<td>2,336,277</td>
<td>8,072,456</td>
</tr>
<tr>
<td>20 - 24</td>
<td>11,197,795</td>
<td>3,451,724</td>
<td>14,449,519</td>
</tr>
<tr>
<td>25 - 29</td>
<td>12,758,496</td>
<td>1,895,672</td>
<td>14,654,168</td>
</tr>
<tr>
<td>30 - 34</td>
<td>12,956,546</td>
<td>962,910</td>
<td>14,919,456</td>
</tr>
<tr>
<td>35 - 39</td>
<td>12,586,889</td>
<td>601,228</td>
<td>13,188,117</td>
</tr>
<tr>
<td>40 - 44</td>
<td>11,475,876</td>
<td>441,268</td>
<td>12,917,144</td>
</tr>
<tr>
<td>45 - 49</td>
<td>9,822,263</td>
<td>340,187</td>
<td>10,162,450</td>
</tr>
<tr>
<td>50 - 54</td>
<td>7,582,165</td>
<td>211,127</td>
<td>7,893,292</td>
</tr>
<tr>
<td>55 - 59</td>
<td>5,313,536</td>
<td>150,905</td>
<td>5,464,441</td>
</tr>
<tr>
<td>60+</td>
<td>8,118,569</td>
<td>156,619</td>
<td>8,275,188</td>
</tr>
<tr>
<td>Total</td>
<td>97,583,141</td>
<td>10,547,917</td>
<td>109,131,058</td>
</tr>
</tbody>
</table>

Figure 2: Age Group and Number of Economically Active in February 2017
Labor Force Analysis

Analysis based on Education Attainment

Table 2: Education Attainment and Number of Unemployment in February 2017

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Number of Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0. No schooling</td>
<td>92,331</td>
</tr>
<tr>
<td>1. Not/not yet completed primary school</td>
<td>546,897</td>
</tr>
<tr>
<td>2. Primary School</td>
<td>1,292,234</td>
</tr>
<tr>
<td>3. Junior High School</td>
<td>1,281,240</td>
</tr>
<tr>
<td>4. Senior High School (General)</td>
<td>1,552,894</td>
</tr>
<tr>
<td>5. Senior High School (Vocational)</td>
<td>1,383,022</td>
</tr>
<tr>
<td>6. Diploma I/II/III/Academy</td>
<td>249,705</td>
</tr>
<tr>
<td>7. University</td>
<td>606,939</td>
</tr>
<tr>
<td>Total</td>
<td>7,005,262</td>
</tr>
</tbody>
</table>

Figure 3: Education Attainment and Number of Unemployment in February 2017
## Labor Force Analysis

### Analysis Based on Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Working</th>
<th>Unemployment</th>
<th>% Working</th>
<th>% Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumatra Island</td>
<td>25258225</td>
<td>1451569</td>
<td>94.57</td>
<td>5.43</td>
</tr>
<tr>
<td>Java Island</td>
<td>66820466</td>
<td>4387113</td>
<td>93.84</td>
<td>6.16</td>
</tr>
<tr>
<td>Bali Island</td>
<td>2416555</td>
<td>46484</td>
<td>93.84</td>
<td>6.16</td>
</tr>
<tr>
<td>Nusa Tenggara Island</td>
<td>4644378</td>
<td>173601</td>
<td>98.11</td>
<td>1.89</td>
</tr>
<tr>
<td>Kalimantan Island</td>
<td>7355762</td>
<td>429221</td>
<td>96.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Celebes Island</td>
<td>8655477</td>
<td>380243</td>
<td>95.79</td>
<td>4.21</td>
</tr>
<tr>
<td>Maluku Islands</td>
<td>1194265</td>
<td>73410</td>
<td>94.21</td>
<td>5.79</td>
</tr>
<tr>
<td>Papua Island</td>
<td>2066845</td>
<td>90134</td>
<td>95.82</td>
<td>4.18</td>
</tr>
<tr>
<td>Total</td>
<td>118411973</td>
<td>7031775</td>
<td>94.39</td>
<td>5.61</td>
</tr>
</tbody>
</table>
Labor Force Analysis

Analysis Based on Main Industry Where the Workers Are Working

Main Industry where Workers are Working

- 1: 31.90%
- 2: 16.43%
- 3: 6.74%
- 4: 6.74%
- 5: 13.12%
- 6: 22.54%
- 7: 4.74%
- 8: 2.98%
- 9: 1.25%
SKILL NEEDS ASSESSMENT

• Conducted by JBS International in 2014 funded by USAID
• Methodology
  • Step 1: Identification of Issues Related to Labor Market.
  • Step 2: Determination of Effective Research Target
    • Location: North Sumatra and South Sulawesi Province.
    • The total number of enterprises selected as the research sample was 62 enterprises.
  • Step 3: Data Collection.
Findings

• *Can Indonesian Firms Find Workers With the Skills They Need?*

• About 90 percent: no difficulty in hiring unskilled workers.
• Hiring administrative workers: not difficult.
• About 80 percent: not difficult to find administrative workers.
• It more difficult to hire skilled workers and machine operators.
• In the case of skilled workers,
  • 70 percent: difficult or very difficult to recruit them,
  • 50 percent: difficult or very difficult to find machine operators.
• No major differences between exporting and non-exporting firms,
• Exporting firm is “very difficult” to hire skilled workers and machine operators than non-exporting firms do.
Findings

Firms Have Different Strategies to Find the Skills They Need

• It is challenging to identify and recruit qualified workers.
• About 30 percent are from other Indonesian regions.
• Hiring foreign workers is higher among exporting firms (35 percent) compared to non-exporting firms (13 percent).
• Most firms offer training opportunities for their staff.
• About 55 percent of firms: training opportunities are available to less than 50 percent of workers in the company.
• Another 35 percent of firms: training opportunities to more than 50 percent of their workers,
• Close to 10 percent of firms: do not provide training at all.
Findings

What is the minimum level of education firms required for new hires?

• In the case of unskilled workers
  • About 52 percent of firms reported a minimum education requirement equivalent to full secondary general education (SMA),

• For skilled workers
  • Most firms require a minimum education level of SMA or SMK (secondary vocational education).
  • 81 percent of exporting firms require at minimum either an SMA or an SMK diploma,
  • 65 percent of non-exporting firms require at minimum either an SMA or an SMK diploma,

• In the case of machine operators
  • 91 percent of the exporting firms require a minimum of either SMA or SMK diplomas
  • 79 percent among non-exporting firms
  • The remaining exporting and non-exporting firms require post-secondary degrees as a minimum.
  • 9 percent of non-exporting firms declare that they require less than full secondary education for this position, compared to none among exporting firms.

• For administrative workers
  • The minimum education requirements vary from a secondary school degree to a diploma to a university degree.
Findings

*What are firms’ perceptions of education institutions’ graduates and what they learn?*

- Technical courses offered at SMAs were ranked lowest in relevancy by firms.
- Only 20 percent of firms said these courses were relevant to their needs, with no differences between exporting and non-exporting firms.
- SMK courses were better, with 56 percent of non-exporting firms and 65 percent of exporting firms saying courses are relevant to industry needs.
- D1 and D2 courses were considered more relevant than SMAs, but less than SMKs.
- D3, D4 and university courses were considered relevant by over 50 percent of enterprises, regardless of export orientation.
- Among exporting firms, SMK and D3/D4 courses were seen as most relevant,
- Non-exporting firms, D3/D4 and university courses were considered most relevant.
- The largest gap between exporting and non-exporting firms’ perceptions is for SMA graduates: almost 50 percent of non-exporting firms consider them ready for work compared to 30 percent of exporting firms.
Findings

*How well-developed are partnerships between businesses and learning institutions?*

- Of the five business-education partnership items, only three are perceived as important by more than 50 percent of firms:
  - Company participation in curricula development,
  - Provision of training opportunities to students,
  - Provision of technical staff as teachers or assistance to training institutions.
- Company participation in student testing and participation in the governance of training institutions were perceived as less important.

- The gap between firms’ perceptions about the importance of each dimension of the partnership, and actual involvement in a partnership with training institutions.
Findings

*Important skill areas for training versus actual training in the firm*

• For non-exporting firms,
  • The top three areas non-exporting firms consider important to provide training are:
    • Production processes, Team building and marketing.
  • The “gap” between skills considered important by firms and the actual provision of training in those areas.
  • The largest gap is found for ICT (0.59), Marketing (0.66), and Other (0.72).

• For exporting firms,
  • The top three skill categories firms consider important to provide training are:
    • Production processes, leadership, and team building.
  • The largest gap is found for customer care training (0.54), leadership training (0.55) and marketing (0.60).
Findings

General competencies firms consider important for graduates to have

i) General competencies considered important by firms

The competencies most enterprises thought were important included: being a team player, trainability, time management skills and being task oriented. From the list, competencies perceived as least important were, being entrepreneurial, having ICT skills, and being investigative. No large differences were found among exporting and non-exporting firms.
Findings

General competencies firms consider important for graduates to have

ii) SMA graduates

SMA graduates. SMA graduates are perceived more poorly among exporting firms than non-exporting firms. Between 70 to 90 percent of firms, regardless of export orientation, say that SMA graduates perform below expectations for competencies such as: (1) interpreting graphical information, (2) tackling problems in a systematic way (3) using basic English, (4) presenting graphical information, (5) working independently, (6) identifying production problems, (7) being forward looking, (8) working towards set targets, (9) learning independently, and (10) finding creative solutions.

On the other end, the smallest proportion of enterprises (less than 40 percent) rate graduates’ competencies as below expectations in the following competencies:

(1) reading and writing, (2) following instructions, (3) oral communication, (4) interacting positively with others, (5) numeracy skills, (6) learning on the job, (7) working with others in a team, and (8) meeting deadlines.
Findings

General competencies firms consider important for graduates to have

iii) SMK graduates

The blue line (non-exporting firms) is always contained within the red line (exporting firms), indicating that exporting firms are across the board more pessimistic about SMK graduates’ competencies than their non-exporting counterparts. The largest percentage of firms (more than 50 percent) saying SMK graduates’ competencies are below expectations occur for the following competencies: (1) using basic English, (2) interpreting graphic information, (3) presenting graphic information, (4) tackling problems in a systematic way, (5) being forward looking, (6) working independently, (7) presenting numerical information, (8) writing an informative report, among others. In terms of the lowest proportion of firms rating SMK graduates’ competencies as below expectations, the responses include: (1) reading and writing, (2) following instructions, (3) interacting positively with others, (4) numeracy skills, (5) oral communication, (6) learning on the job, and (7) meeting deadlines.
Findings

The perception gap between exporting and non-exporting enterprises

iv) D3/D4 graduates

Firms’ perceptions about politeknik graduates (D3/D4) are somewhat better than those for SMA and SMK graduates. But the difference in perceptions between exporting and non-exporting firms is more pronounced. The largest percentage of enterprises saying D3/D4 graduates perform below expectations is for (1) tackling problems in a systematic way, (2) finding creative solutions, (3) being forward looking, (4) interpreting graphical information, (5) presenting graphical information, and (6) using basic English.

The least problematic competencies among D3/D4 graduates according to enterprises, are:

(1) numeracy skills, (2) reading and writing, (3) interacting positively with others, (4) following instructions, and (5) oral communication.
Findings

The perception gap between exporting and non-exporting enterprises

iv) D3/D4 graduates

Firms’ perceptions about politeknik graduates (D3/D4) are somewhat better than those for SMA and SMK graduates. But the difference in perceptions between exporting and non-exporting firms is more pronounced. The largest percentage of enterprises saying D3/D4 graduates perform below expectations is for (1) tackling problems in a systematic way, (2) finding creative solutions, (3) being forward looking, (4) interpreting graphical information, (5) presenting graphical information, and (6) using basic English.

The least problematic competencies among D3/D4 graduates according to enterprises, are:

(1) numeracy skills, (2) reading and writing, (3) interacting positively with others, (4) following instructions, and (5) oral communication.
Development Strategy:
Indonesia Qualification Framework (IQF)
The President Regulation Number 8 in the year of 2012
Five-Strategy for Labor Force Quality Improvement by Ministry of Manpower and Transmigration

1. **The programs for improvement will be made bigger.** Those who are at school age should be in the school, and those who are at productive age must join in vocational training.

2. **BLKs will be reoriented with priority being placed on sectors** such as manufacturing and tourism. The training syllabus at BLKs will be based on the needs of prioritized, thriving industries.

3. **BLKs will be revitalized**, not only by renewing equipment and buildings, but also by aligning programs with the latest educational theory.

4. **BLKs will be rebranded.** BLKs will be transformed into BLK-Pros, which do not only focus on creating experts such as mobile phone repairers, but also on smartphone production skills.

5. **The private sector parties** will be asked to invest in the training centers and to jointly manage them, revitalizing the underperformed ones.
Recommendation

• Soft Skill should be more intensive inserted into the curricula and teaching and learning strategy for national education system for all levels.

• The involvement of industry in designing curricula at higher education system.

• The increasing number of polytechnic with different concentrations/areas.

• The number of TVET must be increased and be reengineered to be fit to the labor force’s needs.

• The relationship of university and industry must be developed in many aspects such as internship and research areas.
Thank You