Making Skills Development Work For The Future

Asia-Pacific Conference on Education and Training 2015
(ACET 2015)

Venue: Berjaya Times Square Hotel, Kuala Lumpur
Date: 3-5 August 2015
2014 Talent Shortage Survey
Global and Regional Highlights
About the Talent Shortage Survey

Employers were asked......

• Ninth year (2014), Tenth year (2015)
• Over 41,000 employers in 42 countries & territories
• Research conducted in Q1 2014 & Q1 2015

• How much difficulty have employers experienced in their effort to fill jobs?
• What are the most difficult-to-fill jobs?
• What impact talent shortages have on their ability to meet client needs?
• What impact talent shortages have on their organization?
• Why jobs are hard to fill?
• What strategies are being pursued to overcome these difficulties?
Global Results: Proportion Having Difficulty Filling Jobs

Top 10 jobs employers have difficulty filling

1. Skilled Trade Workers
2. Engineers
3. Technicians
4. Sales Representatives
5. Accounting & Finance Staff
6. Management/Executives
7. Sales Managers
8. IT Staff
9. Administrative Assistants & Office Support Staff
10. Drivers

Yearly Proportion (2006-2014):
- 2006: 40%
- 2007: 41%
- 2008: 31%
- 2009: 30%
- 2010: 31%
- 2011: 34%
- 2012: 34%
- 2013: 35%
- 2014: 36%
Global Results
Proportion of Employers Reporting Difficulty Filling Jobs
Global Results

The Effect Talent Shortages have on an organization

- Reduced Ability To Serve Clients: 41% (2014), 43% (2013)
- Reduced Competitiveness/Productivity: 40% (2014), 39% (2013)
- Increased Employee Turnover: 27% (2014), 25% (2013)
- Reduced Innovation and Creativity: 24% (2014), 22% (2013)
- Lower Employee Engagement/Morale: 24% (2014), 21% (2013)
Global Results

How are employers responding to the challenge of the talent shortage?

- **People practices**: 47% in 2014, 45% in 2013
- **Talent sources**: 25% in 2014, 24% in 2013
- **Work models**: 23% in 2014, 27% in 2013
- **Not pursuing strategies at present**: 22% in 2014, 22% in 2013
Global Results

Overcoming the talent shortage:
People Practices

- Providing Additional Training and Development to Existing Staff: 23% (2014 & 2013)
- Utilizing Non-Traditional—or Previously Untried—Recruiting Practices, Both Internally or Externally, in Response to the Growing Challenge of Workforce Strategy: 10% (2013)
- Redefining Qualifying Criteria to Include Individuals Who Lack Some Required Skills/Formal Qualifications, but Have the Potential to Acquire Them: 6% (2014 & 2013)
- Enhancing Benefits: 6% (2014 & 2013)
- Increasing Starting Salaries: 5% (2014)
- Providing Clear Career Development Opportunities to Applicants During Recruitment: 5% (2014)
- Creating an Interim Role for Talented Individuals With In-demand Skills (Especially For Executive or Very Senior Role): 3% (2014)
Global Results

Overcoming the talent shortage: Talent Sources

- Adapting Talent Sourcing to Recruit More Untapped Talent Pools:
  - Candidates Outside My Local Region: 2013 - 5%, 2014 - 4%
  - Youth: 2013 - 4%, 2014 - 4%
  - Candidates Outside My Country: 2013 - 4%, 2014 - 3%
  - Older Workers: 2013 - 2%, 2014 - 3%
  - Women: 2013 - 2%, 2014 - 2%
  - Ex-Military Personnel/Military Veterans: 2013 - 1%, 2014 - 1%

- Appointing People Who Don’t Have the Skills Currently, But Do Have Potential to Learn and Grow: 2013 - 7%, 2014 - 8%
- Partnering With Educational Institutions to Create Curriculum Aligned to My Talent Needs: 2013 - 6%, 2014 - 7%
- Considering New Offices or Building Out Existing Facilities in Areas Where the Talent Is: 2013 - 1%, 2014 - 1%
Global Results

Overcoming the talent shortage: Work Models

- Increasing the Focus on Improving Our Talent Pipeline (Identifying High Potentials, Building a Succession Management Approach, etc.)
  - 2014: 10%
  - 2013: 13%
- Redesigning Current Work Procedures (Such As Sharing Work Assignments Between Different Employees, Departments or Bureaus)
  - 2014: 6%
  - 2013: 6%
- Integrating Contingent Workers Into the Process
  - 2014: 5%
  - 2013: 5%
- Offering More Flexible Work Arrangements
  - 2014: 3%
  - 2013: 5%
- Providing Virtual Work Options to Candidates
  - 2014: 2%
  - 2013: 2%
Asia Pacific
Asia Pacific Results

7,788 employers interviewed

- Australia
- China
- Hong Kong
- India
- Japan
- New Zealand
- Singapore
- Taiwan

Top 10 jobs employers have difficulty filling

1. Engineers
2. Sales Representatives
3. Skilled Trades Workers
4. Accounting & Finance Staff
5. Sales Managers
6. Technicians
7. IT Staff
8. Management/Executives
9. Researchers (R&D)
10. Production Operators/Machine Operators
Asia Pacific Results
Proportion Having Difficulty Filling Jobs

Global
Asia Pacific
Asia Pacific Results
Proportion of employers reporting difficulty filling jobs
Asia Pacific Results
The Reasons Employers Indicate they have Difficulty Filling jobs

- Looking for more pay than is offered: 14% (2014), 11% (2013)
- Undesirable geographic destination: 7% (2014), 5% (2013)
- Poor image of business sector/occupation: 5% (2014), 4% (2013)
- Lack of applicants willing to work in part-time contingent roles: 4% (2014), 4% (2013)
- Reluctance to change jobs in current economic climate: 4% (2014), 3% (2013)
- Overqualified applicants: 3% (2014), 2% (2013)
- Reluctance to relocate: 3% (2014), 2% (2013)
- Poor image of company and/or its culture: 2% (2014), 1% (2013)
Asia Pacific Results

The Effect Talent Shortages have on an Organization

- Reduced Competitiveness/Productivity: 43% (2014) vs. 41% (2013)
- Reduced Ability to Serve Clients: 39% (2014) vs. 40% (2013)
- Reduced Innovation and Creativity: 26% (2014) vs. 25% (2013)
- Lower Employee Engagement/Morale: 23% (2014) vs. 24% (2013)
- Increased Employee Turnover: 23% (2014) vs. 23% (2013)
- Higher Compensation Costs: 18% (2014) vs. 18% (2013)
Asia Pacific Results

How are Employers Responding to the Challenge of the Talent Shortage?

- People Practice: 48% (2014), 44% (2013)
- Talent Sources: 35% (2014), 33% (2013)
Asia Pacific Results

Overcoming the Talent Shortage: People Practices

Utilizing Non-Traditional—or Previously Untried—Recruiting Practices, Both Internally or Externally, in Response to the Growing Challenge of Workforce Strategy
- 2014: 16%
- 2013: 11%

Providing Additional Training and Development to Existing Staff
- 2014: 16%
- 2013: 19%

Redefining Qualifying Criteria to Include Individuals Who Lack Some Required Skills/Formal Qualifications, but Have the Potential to Acquire Them
- 2014: 8%
- 2013: 7%

Enhancing Benefits
- 2014: 7%
- 2013: 7%

Increasing Starting Salaries
- 2014: 7%
- 2013: 7%

Providing Clear Career Development Opportunities to Applicants During Recruitment
- 2014: 6%
- 2013: 6%

Creating an Interim Role for Talented Individuals With In-demand Skills (Especially for Executive or Very Senior Role)
- 2014: 3%
- 2013: 3%
Asia Pacific Results

Overcoming the Talent Shortage: Talent Sources

Adapting Talent Sourcing to Recruit More Untapped Talent Pools:
- Candidates Outside My Local Region (2014: 25%, 2013: 22%)
- Candidates Outside My Country (2014: 8%, 2013: 7%)
- Youth (2014: 6%, 2013: 5%)
- Older Workers (2014: 5%, 2013: 3%)
- Women (2014: 4%, 2013: 3%)
- Ex-Military Personnel/Military Veterans (2014: 2%, 2013: 1%)

Appointing People Who Don’t Have the Skills Currently, But Do Have Potential to Learn and Grow (2014: 8%, 2013: 6%)
Partnering With Educational Institutions to Create Curriculum Aligned to My Talent Needs (2014: 7%, 2013: 7%)
Considering New Offices or Building Out Existing Facilities in Areas Where the Talent Is (2014: 2%, 2013: 2%)
Asia Pacific Results

Overcoming the Talent Shortage: Work Models

- Increasing the Focus on Improving Our Talent Pipeline (Identifying High Potentials, Building a Succession Management Approach, etc.): 12% (2014), 17% (2013)
- Redesigning Current Work Procedures (Such As Sharing Work Assignments Between Different Employees, Departments or Bureaus): 8% (2014), 5% (2013)
- Integrating Contingent Workers Into the Process: 7% (2014), 5% (2013)
- Offering More Flexible Work Arrangements: 5% (2014), 5% (2013)
- Providing Virtual Work Options to Candidates: 4% (2014), 2% (2013)
Top 5 Specialization that Employers require Most Hiring - Malaysia

- Sales: 38%
- Accounting / Finance: 26%
- Manufacturing: 26%
- Admin: 23%
- Marketing: 19%

Source: Jobstreet
### SALARY INCREASE EXPECTATIONS

Intended average % increases for next reviews across all countries:

- **5%**
- **24%**
- **41%**
- **22%**
- **8%**

#### By country:

<table>
<thead>
<tr>
<th>Country</th>
<th>Nil</th>
<th>Less than 3%</th>
<th>From 3% to 6%</th>
<th>From 6% to 10%</th>
<th>More than 10%</th>
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<td><strong>Malaysia</strong></td>
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</table>

**SOURCE:** Hays Salary Guide 2015

INFOGRAPHIC BY: MUHAMMAD HEZA ZAINUDIN / THE MALAYSIAN INSIDER
Design new people practices – the same old recruitment practices won’t yield different results (e.g. redefine qualifying criteria)

Adopt an agile mindset – explore untapped pools to source new talent (e.g. candidates from further afield, youth, older workers, women, military veterans)

Foster a learning culture and encourage employees to own their careers

Promote your unique employee value proposition to become a talent destination
Ten Quick Ways to Boost Agility

1. Be Nimble
2. Engage
3. Nurture
4. Be Flexible
5. Establish Preferred Suppliers
6. Invest in Employer Brand
7. Be Social
8. Partner with Schools
10. Create a Culture of Teachable Fit

Emotional intelligence + transferrable skills = potential talent shortage
HR is the Key Driver of an Agile Organization

• Developing and Supporting a Framework for Teachable Fit
• Creating a Culture of Talent Development
• Achieving the Right Cultural Profile
• Tapping into New Sources of Talent
• Driving Agility from the Outside
• Improved Collaboration with Educational Institutions

Improved Collaboration with Educational Institutions

• Commit to hire young people and develop their skills.
• Develop a standardised cross-country approach to developing and using workers to their full potential across their entire working lives.
• Aggregate funding from major agencies to improve the efficiency of current, project-based funding of education and employability initiatives.
• For governments, maintain or increase total investment in practical skill development, particularly vocational training.
• Support research into the ongoing needs of competitiveness, especially in relation to current and future skills and competencies.
• Better link education ministries and departments to the business sector. Governments should combine emerging company-level skills data with existing industry
Making Skills Development Work For The Future

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Date: 3-5 August 2015
3rd August 2015

Asia Pacific Conference on Education and Training
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  - National Skill Development Mission
  - National Policy for Skill Development and Entrepreneurship 2015
    - Aspiration, Capacity, Technology & Innovation
Demographic Dividend in India

- Population in the working age group (15-59 years): 62%
- Of the total population below 25 years of age: 54%
- Estimated average age of population in India by 2020: 29 years

Source:
Key Challenges
Skilling at Scale with Speed and Standards

1. Low aspirational value attached to skilling
2. Limited mobility between vocational and higher education
3. Outmoded curricula; lack of market led standards
4. Weak linkages to employers/corporates;
5. Low quality of training;
6. Funding constraints;
7. Lack of adequate infrastructure;
8. Demand-supply mismatch
9. Multiplicity in assessment and certification
10. Lack of trainers
11. Unequal access
12. Non recognition of prior skills; large unorganized sector

Incremental Human resource Requirement Across Sectors : 109.73

Top 10 sectors account for about 80% of requirements

New Ministry: Designed to deliver

Notified as Department on 31.7.14, became full-fledged Ministry on 9.11.14; Funding began from 1.4.15

Two verticals of DGET transferred on 16.4.15

Two Institutes on Entrepreneurship from MSME transferred on 02.5.15

Directorates of Training & Apprenticeship Training

Govt ITI – 2285
Pvt ITI – 9821
NCVT
ATIs & Other Institutes

Apprenticeship SDI-MES _ 12000 centres

National Skill Development Fund

Entrepreneurship Incubation

Directorates of Training & Apprenticeship Training

NDCTC, Noida

IIE, Guwahati

211 Training Partners with 3611 centres

37 Sector Skill Councils

NIESBUD, Noida

Labour Market Information System (LMIS)

National Skill Qualification Framework (NSQF)

National Skill Development Agency

National Skill Development Corporation

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Apprenticeship SDI-MES _ 12000 centres
National Skill Development Mission

Mission Statement

“To rapidly scale up skill development efforts in India, by creating an end-to-end, outcome-focused implementation framework, which aligns, the demands of the employers for a well-trained skilled workforce with the aspirations of Indian citizens for sustainable livelihoods.”

Mission Structure

**Governing Council**
Chair: Prime Minister
*Overall guidance & policy direction

**Steering Committee**
Chair: Minister, SDE
*Review timely progress

**Mission Directorate (Executive Committee)**
Chair: Secretary, SDE
*Implement & monitor mission activities

NSDA/NSDC/D GT

State Skill Development Missions
National Policy 2015

- A maiden attempt to provide a comprehensive roadmap for job seekers and job creators.
- Revision of 2009 Policy, which provided for a review after 5 years to align with emerging national and international trends

Policy vision

“To create an ecosystem of empowerment by Skilling on a large Scale at Speed with high Standards and to promote a culture of innovation based entrepreneurship which can generate wealth and employment so as to ensure Sustainable livelihoods for all citizens in the country.”
Other prescriptions include:
- Trainers & Assessors
- Mobilization
- Quality
- Global Partnerships

- Promotion of skilling amongst women
- Synergy
- Outreach
- Inclusivity
Aspirational Value of Skilling

• National Campaign to create awareness and a positive pro-skilling environment
  • National Skills Universities and institutes will be promoted in partnership with States as centres of excellence for skill development and training of trainers.
  • Provide vertical growth pathways on the lines of the general education system
  • Modernisation of ITIs
  • Skilling and entrepreneurship education will be integrated with formal education by introducing vocational training classes linked to the local economy from class nine onwards
  • Counselling to create aspiration, reduce the attrition rates during training and employment by helping candidates make informed choices.
  • Leverage network of Post offices & Citizen Service Centres
Capacity Creation

New ITIs in PPP mode in unserved regions to expand outreach of skilling programmes.

Higher order skilling promoted through ATIs and Multi Skill Institutes (MSIs) set up in PPP mode with strong industry linkages.

Capacity creation through private sector initiatives by NSDC

State Governments encouraged to setup Kaushal Vardhan Kendras (KVKs) at block level. Focus on school drop-outs, adolescent girls, housewives and rural youth.
Leveraging Technology

- Creation of a national Labour Market Information System (LMIS) to provide a realistic & reliable assessment of economic and market trends
- Engaging the private sector in creating mobile based IT applications (e.g., Plumber on call)
- Distance learning in ITIs (15000+ trainers trained)
- Portal for trainers and assessors
- Optical Fibre Network of Railways
Innovative Initiatives

- Skills Innovation Committee
  Five shortlisted innovative proposals considered for funding & publicity
- i-Saksham
- Learn & Earn Model
- Innovation based Entrepreneurship:
  - A national network of incubators and accelerators will also be established to support young entrepreneurs. (4 incubators in IITs)
  - A national network of high quality, screened mentors will be created, leveraging existing networks and successful local entrepreneurs where possible.
  - Align entrepreneurship activities in innovative and cutting edge technology areas
Container School

Transformation of Waste containers into technology laced schools

Can be easily cloned in several locations across the country

Increased outreach even in the remotest areas
Thank you
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Asia-Pacific Conference on Education and Training

“Private Sector Involvement for Innovation Skill Development in Thailand”

Prapai Numthavaj
Petroleum Institute of Thailand
3 August, 2015
Kuala Lumpur, Malaysia
Petroleum Institute of Thailand (PTIT)

A non-profit foundation since 1985

Information, database & publications

Education & training

Policy matters linking government & industry

Channel of dialogue among government, industry & public

Members consist of:

- Oil, gas & petrochemical operators in Thailand
- Power & energy-related operators
- Petroleum services companies
- Petrochemical support companies
- Financial institutions
- Legal professionals
- Consultancy companies
Human Resource Development (HRD)

In 2014:
- 12 public lectures and seminars attended by 2,532 people
- 22 courses attended by 759 people
PTIT’s ChEPS Program

**V-ChEPS**
- Vocational Chemical Engineering Practice College

**PI-ChEPS**
- Productivity Improvement & Innovative Creation Training by Learning Concept of Chemical Engineering Practice School

**V-ChEPS**
- Ministry of Education

**PI-ChEPS**
- PTT GC

**V-ChEPS**
- Industry Contributions

**PI-ChEPS**
- PTT Chemical
Partnership for New Technician Development Program

To develop technicians with competencies needed by industry

At Map Ta Phut Technical College

For 2-year high vocational certificate

Apply “Constructionism“

“Training in plant & project based learning”

Meditation

Creative thinking

Learning by doing

Dialogue
Train the Trainer
New Technician Development Program

Curriculums Development
Background

Learning Design

- Basic Chem.
- Mass & Energy Balance
- Heat Transfer
- Fluid Mechanic
- Unit Operation
- Safety
- Quality control
- English
- Learning Tools

Common Knowledge

Mechanicals

Instrument

Electrical
New Technician Development Program

Learn from real equipment
New Technician Development Program

Learn from Industry Experts

Petroleum Institute of Thailand
New Technician Development Program

Train in Plants
New Technician Development Program

Learn Industry Needs
Productivity Improvement & Innovative Creation

- Hand-on technicians with engineering and learning skill
- For PTT Chemical Group
- For 10-month training certificate
- Apply “Constructionism“
- “Training in plant & project based learning”

- Meditation
- Self motivation
- Theory proving
- Problem based learning
- Team Work
Background

Learning Structure

- **Learning & Thinking skills**
  - Meditation
  - MicroWorlds
  - LEGO-logo/GoGo Board
  - Information searching
  - English
  - Mathematic

- **Technical skills**
  - Process science & calculation
  - Mass & Energy balance
  - Fluid transport
  - Heat transfer
  - Unit operation
  - Measurement & control

- **Project base**
  - Planning
  - Analysis
  - Presentation
  - Project phase
  - Individual project

Learning & Thinking skill, 25%
Technical Skill, 25%
Project base, 50%
Benefit from PI-ChEPS

Company

- Value Added by
  - Cost Reduction
  - Productivity Improvement
- Learning organization
- Staff competency development

HR

- Chemical engineering knowledge that fits for work
  - Thinking & learning skill development
    - Systematic thinking
    - Knowledge sharing
    - Team work
    - Innovation and improvement practice through problem based learning, project based learning, individual project
- Working improvement
  - Enhance individual project for implementation
    - Changing agent: Ability to be leader and participate in Production Improvement Team
Constructionism

Learning Cycle

Lifelong learning

Think

Reflect

Do

Plan

Modify Actions Based on New Knowledge

Study Reflect Evaluate

Revisit/Clarify Goals and Purposes

Take Action/Experiment

Assess/Gather Evidence

Revisit/Clarify Goals and Purposes

Study Reflect Evaluate

Modify Actions Based on New Knowledge

Take Action/Experiment

Assess/Gather Evidence

Petroleum Institute of Thailand
# Next Step

**Petroleum Institute of Thailand**

### Occupational Standard / Competency Framework

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Knowledge</th>
<th>Skill</th>
<th>Attributes</th>
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</thead>
</table>
| I     | Work under supervision  
 I.1 under close supervision  
 I.2 under some supervision | PPC/1-5 one of PPO/1-4 | Understand measurements and use of measurement devices (เข้าใจและใช้มาตรฐานเป็น) | Follow direction/order (ปฏิบัติตามคำสั่ง)  
 Discipline (มีวินัย)  
 Human relation (มีมนุษยสัมพันธ์) |
| II    | Work independently | PPC/1-5 PPO/1-5 | Problem identification | Read /Write /Communicate |
| III   | Work as supervisor  
 III.1 Advanced  
ผู้ชำนาญการระดับชำนาญงาน  
 III.2 Expert  
 ผู้ชำนาญการระดับผู้เชี่ยวชู | PPC/1-5 PPO/1-5 PPO/6 + PPO/7… | Problem solving  
 Peer Acceptance | Teamwork /Reporting  
 Leadership |
Thank you