



TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY

LABOR MARKET INTELLIGENCE REPORT

THE GLOBAL COMPETITIVENESS REPORT 2012-2013

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The Global Competitiveness Report 2012 - 2013

Early this year, the Global Competitiveness Report (GCR) 2011-2012 released by the World Economic Forum (WEF) in September 2011, was featured as one of the Labor Market Intelligence Report (LMIR) early this year. This LMIR presents the GCR 2012 – 2013. TESDA can make significant contribution in improving the scores in relevant key indicators by ensuring that the impact of its programs will be felt by the industry.

The **WEF or the World Economic Forum** is an independent international organization committed to improving the state of the world by engaging business, political, academic and other leaders of society to shape global, regional and industry agendas.¹

The **Global Competitiveness Report** is the world's most comprehensive assessment of national competitiveness, containing indicators of drivers for economic recovery and growth.

The GCR 2012–2013² provides policymakers, business executives, and researchers as well as the public a comprehensive dataset on a broad array of competitiveness indicators for a record number of 144 economies. The Report used data obtained from leading international sources as well as from the WEF's annual Executive Opinion Survey, a survey on perspectives of business leaders on issues related to national competitiveness.

The survey as well as other data is done in collaboration with the WEF's partner institutes in each country. The partner institute in the Philippines is the Makati Business Club (MBC).

The Report presents the rankings of the Global Competitiveness Index (GCI), developed by Professor Xavier Sala-i-Martin and introduced in 2005. The GCI, a comprehensive tool that measures the microeconomic and macroeconomic foundations of national competitiveness, is based on 12 pillars of competitiveness, identified as drivers for economic growth.³

The Report now covers 144 economies, from 142 in 2011.

The 12 Pillars of Competitiveness

These are determinants that drive productivity and competitiveness used in the Report. The pillars are all important for competitiveness and growth, however, each is not mutually exclusive – a combination of two or more can be significant at the same time.

The pillars of competitiveness are as follows:

1. **Institutions** – the institutional environment within which individuals, firms, and governments interact to generate wealth. The quality of institutions affects

¹ From the World Economic Forum website www.weforum.org

² The Report and an interactive data platform are available at www.weforum.org/gcr.

³ The first version of the Global Competitiveness Index was published in 2004. See Sala-i-Martin and Artadi 2004.

competitiveness and growth because it influences investment decisions and the organization of production and plays a key role in the ways in which societies distribute the benefits and bear the costs of development strategies and policies. There are 22 key indicators for this area.

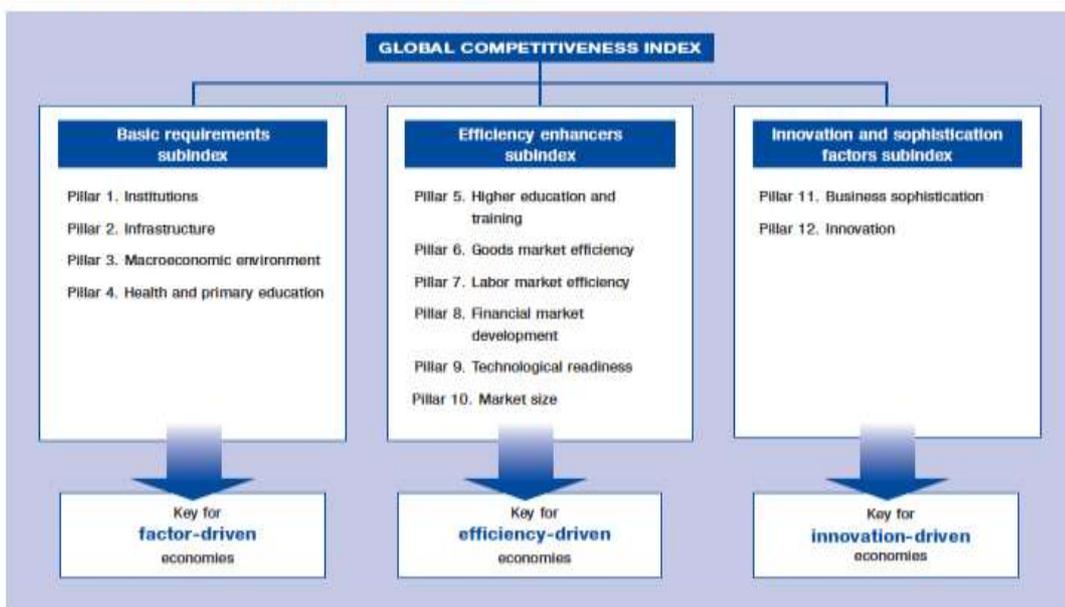
2. **Infrastructure** – reduces the effect of distance between regions, integrating the national market and connecting it at low cost to markets in other countries and regions. It provides access of less-developed communities to core economic activities and services. There are 9 key indicators in this pillar covering effective modes of transportation, including quality of roads, railroads, ports and air transport; electricity; and telecommunications network.
3. **Macroeconomic environment** - important for business and economic growth, this pillar is measured by the following indicators: government budget balance as percentage of GDP, gross national savings as percentage of GDP, annual percent change of inflation, general government debt as percentage of GDP and country credit rating.
4. **Health and primary education** – a healthy workforce is important to business because workers who are often get sick are often absent or operate at lower levels of efficiency and become less productive. Basic education is important as it increases the efficiency of each individual worker. There are 10 key indicators monitored for this pillar.
5. **Higher education and training** – Quality higher education and training is crucial for economies that want to move up the value chain beyond simple processes and products. They need well educated workers who are able to perform complex tasks and adapt rapidly to their changing environment and the evolving needs of the economy. One of the indicators considered is the extent of staff training because of the importance of vocational and continuous on-the-job training – which is neglected in some economies – for ensuring a constant upgrading of skills. The 8 indicators include enrolment in secondary and tertiary education, quality of the educational system, math and science education and management schools, internet access in schools, availability of research and training services and extent of staff training.
6. **Goods market efficiency** – Efficient goods market enables the right mix of products and services given their particular supply-and-demand conditions, and ensures that these goods can be most effectively traded in the economy. The best possible environment for the exchange of goods requires government intervention that impedes business activities. A total of 16 key indicators are used to measure how efficient the goods market is in the different economies.
7. **Labor market efficiency** – this pillar considers both efficiency and flexibility of the labor market. Flexibility of the labor markets means that workers can shift from one economic activity to another rapidly and at low cost, and allow for wage fluctuations without much social disruption. Factors such as worker incentives and efforts to promote meritocracy at the workplace, equity in the business environment between men and women have a positive effect on worker performance and the attractiveness of the country for talent. These are two aspects that are important where there are talent shortages. A total of 8 indicators are used to measure this pillar.

8. **Financial market development** - this pillar includes the following indicators: availability and affordability of financial services, venture capital, financing through local equity market, ease of access to loans, soundness of banks, regulation of securities exchanges and legal rights index.
9. **Technological readiness** – technology is increasingly essential for firms to compete and prosper. ICT access and usage are key enablers of countries' overall technological readiness. Key indicators used are availability of latest technologies, firm-level technology absorption, FDI and technology transfer, % of individuals using the internet, broadband internet subscription, international internet bandwidth and mobile broadband subscriptions.
10. **Market size** – this pillar covers 2 indicators: domestic as well as foreign market size.
11. **Business sophistication** – Sophisticated business practices bring about higher efficiency in the production of goods and services. The quality of a country's overall business networks and the quality of individual firms' operations and strategies are particularly important for countries at an advanced stage of development. There are 9 indicators to measure this pillar.
12. **Innovation** - Innovation can emerge from new technological and non-technological knowledge. This pillar of competitiveness focuses on technological innovation. The 7 key indicators include the following: capacity for innovation, quality of scientific research institutions, company spending on R&D, University-industry collaboration in R&D, government procurement of advanced tech products, availability of scientists and engineers and PCT patents measured in terms of applications / million population.

The Global Competitiveness Index Framework

1.1: The Global Competitiveness Index 2012-2013

Figure 1: The Global Competitiveness Index framework



Note: See the appendix for the detailed structure of the GCI.

Highlights of the Report: Focus on the Philippines

- The Philippines leaped **from rank 75 to rank 65** (out of the 144 economies covered by the report), making it one of the countries with the most improvement in this year's edition advancing 22 places since reaching its lowest mark in 2009. It is now among the upper 45% (from upper 53% in 2010-2011) of economies in terms of global competitiveness with a GCI of 4.23 (from 4.1 in 2010-2011).
- The Philippines made important strides this year in improving competitiveness—albeit often from a very low base—with respect to the following:
 1. Public Institutions (94th, up 23 places)
 - a. Trust in politicians (95th, up 33)
 - b. The perception is that corruption (108th, up 11)
 - c. Red tape (108, up 18)
 2. Macroeconomic environment (36th up 18) representing one of the strongest aspects of the Philippine's performance
 3. Market size (35th, same). In addition, the financial sector has become more efficient and increasingly supportive of business activity (58th, up 13).
 4. **Higher education and training (64th, up 7)**
- Despite these very positive trends, many weaknesses remain to be addressed:⁴
 - The country's infrastructure is still in a dire state, particularly with respect to sea (120th) and air transport (112th), with little or no progress achieved to date.
 - Furthermore, various market inefficiencies and rigidities continue, most notably in the labor market (103rd).

The Philippines' ranking among Southeast Asian neighbors:

- The Philippines switched places with Vietnam now in rank 75, making the Philippines rank 6 among the 9 Southeast Asian countries, from 7 in 2011.
- For higher education and training, the Philippines ranks no. 5, closely following Thailand, overtaking Indonesia, which is rank 75.

Table 1A. Southeast Asian Economies: Ranking in Sub-Indexes

| | Overall Index | | | Basic Requirements | | | Efficiency Enhancers | | | Innovation and Sophistication | | |
|--------------------|---------------|-----------|-----------|--------------------|------------|-----------|----------------------|-----------|-----------|-------------------------------|-----------|-----------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Brunei Darussalam | 28 | 28 | 28 | 20 | 24 | 21 | 67 | 71 | 68 | 72 | 73 | 62 |
| Cambodia | 109 | 97 | 85 | 113 | 108 | 97 | 103 | 98 | 85 | 106 | 91 | 72 |
| Indonesia | 44 | 46 | 50 | 60 | 53 | 58 | 51 | 56 | 58 | 37 | 41 | 40 |
| Malaysia | 26 | 21 | 25 | 33 | 25 | 27 | 24 | 20 | 23 | 25 | 22 | 23 |
| Philippines | 85 | 75 | 65 | 99 | 100 | 80 | 78 | 70 | 61 | 75 | 74 | 64 |
| Singapore | 3 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 10 | 11 | 11 |
| Thailand | 38 | 39 | 38 | 48 | 46 | 45 | 39 | 43 | 47 | 49 | 51 | 55 |
| Timor-Leste | 133 | 131 | 136 | 127 | 119 | 117 | 136 | 138 | 138 | 136 | 137 | 136 |
| Vietnam | 59 | 65 | 75 | 74 | 76 | 91 | 57 | 66 | 71 | 53 | 75 | 90 |

⁴ Global Competitiveness Report 2012-2013, World Economic Forum

Table 1B. Southeast Asian Economies: Ranking in Efficiency Enhancers Sub-Index

| Country | Overall Index | | | Efficiency Enhancers | | | Higher Education and Training | | | Goods Market Efficiency | | | Labor Market Efficiency | | | Financial Market Development | | | Technological Readiness | | | Market Size | | |
|--------------------|---------------|-----------|-----------|----------------------|-----------|-----------|-------------------------------|-----------|-----------|-------------------------|-----------|-----------|-------------------------|------------|------------|------------------------------|-----------|-----------|-------------------------|-----------|-----------|-------------|-----------|-----------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Brunei Darussalam | 28 | 28 | 28 | 67 | 71 | 68 | 64 | 61 | 57 | 78 | 82 | 73 | 10 | 9 | 13 | 55 | 57 | 56 | 49 | 57 | 64 | 118 | 121 | 124 |
| Cambodia | 109 | 97 | 85 | 103 | 98 | 85 | 122 | 120 | 111 | 81 | 58 | 50 | 51 | 38 | 28 | 92 | 74 | 64 | 115 | 110 | 100 | 96 | 93 | 89 |
| Indonesia | 44 | 46 | 50 | 51 | 56 | 58 | 66 | 69 | 73 | 49 | 67 | 63 | 84 | 94 | 120 | 62 | 69 | 70 | 91 | 94 | 85 | 15 | 15 | 16 |
| Malaysia | 26 | 21 | 25 | 24 | 20 | 23 | 49 | 38 | 39 | 27 | 15 | 11 | 35 | 20 | 24 | 7 | 3 | 6 | 40 | 44 | 51 | 29 | 29 | 28 |
| Philippines | 85 | 75 | 65 | 78 | 70 | 61 | 73 | 71 | 64 | 97 | 88 | 86 | 111 | 113 | 103 | 75 | 71 | 58 | 95 | 83 | 79 | 37 | 36 | 35 |
| Singapore | 3 | 2 | 2 | 1 | 1 | 1 | 5 | 4 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 11 | 10 | 5 | 41 | 37 | 37 |
| Thailand | 38 | 39 | 38 | 39 | 43 | 47 | 59 | 62 | 60 | 41 | 42 | 37 | 24 | 30 | 76 | 51 | 50 | 43 | 68 | 84 | 84 | 23 | 22 | 22 |
| Timor-Leste | 133 | 131 | 136 | 136 | 138 | 138 | 130 | 134 | 131 | 105 | 110 | 130 | 75 | 90 | 78 | 136 | 139 | 139 | 139 | 140 | 131 | 136 | 137 | 137 |
| Vietnam | 59 | 65 | 75 | 57 | 66 | 71 | 93 | 103 | 96 | 60 | 75 | 91 | 30 | 46 | 51 | 65 | 73 | 88 | 65 | 79 | 98 | 35 | 33 | 32 |

Philippines' ranking in Pillar 5: Higher Education and Training

- Though up by 7 steps, the Philippines needs to improve its ranking in the quality of science and math education (98), secondary education enrolment (81), tertiary education enrolment (76), internet access in schools (73), and availability of research and training services (62).
- It should be noted that data used for secondary education enrolment is 2009, while that of tertiary education enrolment is 2008. It is not also evident that tertiary enrolment which should include post secondary level covered by TESDA, is included in the report. The GCR used statistics from the UNESCO and national reports.
- Questions in the WEF Executive Opinion Survey, used for each of the key indicators relevant to TESDA, other than enrolment are as follows:

5.03 Quality of the Educational System - *How well does the educational system in your country meet the needs of a competitive economy?* The Philippines got a score of 4.1 out of a total of 7 (very well), higher than the mean for all countries, which is 3.7. This pushed the country's ranking for this indicator to rank 45.

5.04 Quality of Math and Science education – *How would you assess the quality of math and science education in your country's schools?* The Philippines fell a little below the mean score of 3.9, at 3.6.

5.06 Internet access in schools - *How would you rate the level of access to the Internet in schools in your country?* With a score of 4.1, the Philippines got a rank of 73. The mean score is also 4.1.

5.07 Availability of research and training services – *In your country, to what extent are high quality, specialized training services available?* The Philippines is at a level higher than the mean score of 4.1, at 4.3, placing the country in rank 62.

5.08 Extent of staff training - *To what extent do companies in your country invest in training and employee development?* This is where the Philippines ranked highest among the indicators in Pillar 5. The score is 4.6 with a rank of 32, bringing the country up to the top 25% among all countries covered.

Philippines

The Global Competitiveness Index in detail

| INDICATOR | VALUE | RANK/144 |
|---------------------------------------------------------|-------|----------|
| 1st pillar: Institutions | | |
| 1.01 Property rights | 4.1 | 74 |
| 1.02 Intellectual property protection | 3.2 | 87 |
| 1.03 Diversion of public funds | 2.8 | 100 |
| 1.04 Public trust in politicians | 2.4 | 95 |
| 1.05 Irregular payments and bribes | 3.2 | 108 |
| 1.06 Judicial independence | 3.0 | 99 |
| 1.07 Favoritism in decisions of government officials | 2.8 | 87 |
| 1.08 Wastefulness of government spending | 3.0 | 86 |
| 1.09 Burden of government regulation | 3.0 | 108 |
| 1.10 Efficiency of legal framework in settling disputes | 3.2 | 107 |
| 1.11 Efficiency of legal framework in challenging regs. | 3.2 | 102 |
| 1.12 Transparency of government policymaking | 4.0 | 97 |
| 1.13 Gov't services for improved business performance | 3.9 | 51 |
| 1.14 Business costs of terrorism | 4.4 | 126 |
| 1.15 Business costs of crime and violence | 3.9 | 107 |
| 1.16 Organized crime | 4.7 | 97 |
| 1.17 Reliability of police services | 3.6 | 100 |
| 1.18 Ethical behavior of firms | 3.7 | 87 |
| 1.19 Strength of auditing and reporting standards | 5.1 | 41 |
| 1.20 Efficacy of corporate boards | 4.7 | 51 |
| 1.21 Protection of minority shareholders' interests | 4.3 | 57 |
| 1.22 Strength of investor protection, 0-10 (best)* | 4.0 | 110 |
| 2nd pillar: Infrastructure | | |
| 2.01 Quality of overall infrastructure | 3.6 | 98 |
| 2.02 Quality of roads | 3.4 | 87 |
| 2.03 Quality of railroad infrastructure | 1.9 | 94 |
| 2.04 Quality of port infrastructure | 3.3 | 120 |
| 2.05 Quality of air transport infrastructure | 3.6 | 112 |
| 2.06 Available airline seat kms/week, millions* | 970.2 | 26 |
| 2.07 Quality of electricity supply | 3.7 | 98 |
| 2.08 Mobile telephone subscriptions/100 pop.* | 92.0 | 95 |
| 2.09 Fixed telephone lines/100 pop.* | 7.2 | 103 |
| 3rd pillar: Macroeconomic environment | | |
| 3.01 Government budget balance, % GDP* | -0.8 | 36 |
| 3.02 Gross national savings, % GDP* | 24.6 | 47 |
| 3.03 Inflation, annual % change* | 4.8 | 70 |
| 3.04 General government debt, % GDP* | 40.5 | 72 |
| 3.05 Country credit rating, 0-100 (best)* | 53.6 | 60 |
| 4th pillar: Health and primary education | | |
| 4.01 Business impact of malaria | 5.1 | 102 |
| 4.02 Malaria cases/100,000 pop.* | 67.9 | 95 |
| 4.03 Business impact of tuberculosis | 4.3 | 116 |
| 4.04 Tuberculosis cases/100,000 pop.* | 275.0 | 126 |
| 4.05 Business impact of HIV/AIDS | 5.1 | 83 |
| 4.06 HIV prevalence, % adult pop.* | 0.1 | 12 |
| 4.07 Infant mortality, deaths/1,000 live births* | 23.2 | 91 |
| 4.08 Life expectancy, years* | 68.5 | 102 |
| 4.09 Quality of primary education | 3.5 | 86 |
| 4.10 Primary education enrollment, net %* | 88.3 | 101 |
| 5th pillar: Higher education and training | | |
| 5.01 Secondary education enrollment, gross %* | 84.8 | 81 |
| 5.02 Tertiary education enrollment, gross %* | 28.9 | 76 |
| 5.03 Quality of the educational system | 4.1 | 45 |
| 5.04 Quality of math and science education | 3.6 | 98 |
| 5.05 Quality of management schools | 4.7 | 39 |
| 5.06 Internet access in schools | 4.1 | 73 |
| 5.07 Availability of research and training services | 4.3 | 62 |
| 5.08 Extent of staff training | 4.6 | 32 |

| INDICATOR | VALUE | RANK/144 |
|---------------------------------------------------|-------|----------|
| 6th pillar: Goods market efficiency | | |
| 6.01 Intensity of local competition | 5.1 | 50 |
| 6.02 Extent of market dominance | 3.3 | 98 |
| 6.03 Effectiveness of anti-monopoly policy | 3.8 | 84 |
| 6.04 Extent and effect of taxation | 3.6 | 57 |
| 6.05 Total tax rate, % profits* | 46.5 | 102 |
| 6.06 No. procedures to start a business* | 15 | 137 |
| 6.07 No. days to start a business* | 35 | 112 |
| 6.08 Agricultural policy costs | 3.8 | 76 |
| 6.09 Prevalence of trade barriers | 4.3 | 76 |
| 6.10 Trade tariffs, % duty* | 4.2 | 53 |
| 6.11 Prevalence of foreign ownership | 4.8 | 66 |
| 6.12 Business impact of rules on FDI | 4.6 | 69 |
| 6.13 Burden of customs procedures | 3.2 | 126 |
| 6.14 Imports as a percentage of GDP* | 35.7 | 97 |
| 6.15 Degree of customer orientation | 5.3 | 27 |
| 6.16 Buyer sophistication | 3.6 | 57 |
| 7th pillar: Labor market efficiency | | |
| 7.01 Cooperation in labor-employer relations | 4.7 | 38 |
| 7.02 Flexibility of wage determination | 4.3 | 117 |
| 7.03 Hiring and firing practices | 3.4 | 108 |
| 7.04 Redundancy costs, weeks of salary* | 27 | 120 |
| 7.05 Pay and productivity | 4.1 | 57 |
| 7.06 Reliance on professional management | 4.9 | 38 |
| 7.07 Brain drain | 3.4 | 71 |
| 7.08 Women in labor force, ratio to men* | 0.63 | 109 |
| 8th pillar: Financial market development | | |
| 8.01 Availability of financial services | 5.0 | 50 |
| 8.02 Affordability of financial services | 4.8 | 34 |
| 8.03 Financing through local equity market | 4.2 | 36 |
| 8.04 Ease of access to loans | 3.1 | 46 |
| 8.05 Venture capital availability | 2.7 | 62 |
| 8.06 Soundness of banks | 5.7 | 41 |
| 8.07 Regulation of securities exchanges | 4.6 | 46 |
| 8.08 Legal rights index, 0-10 (best)* | 4 | 99 |
| 9th pillar: Technological readiness | | |
| 9.01 Availability of latest technologies | 5.2 | 56 |
| 9.02 Firm-level technology absorption | 5.2 | 46 |
| 9.03 FDI and technology transfer | 5.0 | 40 |
| 9.04 Individuals using Internet, %* | 29.0 | 90 |
| 9.05 Broadband Internet subscriptions/100 pop.* | 1.9 | 91 |
| 9.06 Int'l Internet bandwidth, kb/s per user* | 12.4 | 75 |
| 9.07 Mobile broadband subscriptions/100 pop.* | 3.4 | 93 |
| 10th pillar: Market size | | |
| 10.01 Domestic market size index, 1-7 (best)* | 4.5 | 29 |
| 10.02 Foreign market size index, 1-7 (best)* | 5.0 | 40 |
| 11th pillar: Business sophistication | | |
| 11.01 Local supplier quantity | 4.9 | 49 |
| 11.02 Local supplier quality | 4.5 | 68 |
| 11.03 State of cluster development | 4.1 | 98 |
| 11.04 Nature of competitive advantage | 3.6 | 58 |
| 11.05 Value chain breadth | 3.6 | 66 |
| 11.06 Control of international distribution | 4.2 | 54 |
| 11.07 Production process sophistication | 3.8 | 64 |
| 11.08 Extent of marketing | 4.5 | 41 |
| 11.09 Willingness to delegate authority | 4.5 | 27 |
| 12th pillar: Innovation | | |
| 12.01 Capacity for innovation | 2.9 | 86 |
| 12.02 Quality of scientific research institutions | 3.2 | 102 |
| 12.03 Company spending on R&D | 3.2 | 58 |
| 12.04 University-industry collaboration in R&D | 3.5 | 79 |
| 12.05 Gov't procurement of advanced tech products | 3.1 | 107 |
| 12.06 Availability of scientists and engineers | 3.7 | 91 |
| 12.07 PCT patents, applications/million pop.* | 0.3 | 83 |

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 83.

Implications to Technical Education and Skills Development: Need for Strategic Actions

The Global Competitiveness Report 2012 bring to fore significant findings for a country to enhance its efforts towards improving its competitiveness standing. TESDA could very well contribute and share in further increasing the gains that have been realized thus far, as shown in the last 3 reports, particularly in the Efficiency Enhancers Sub-Index.

Strategic actions will have to be undertaken:

1. Purposive development of the 21st century Filipino skilled workforce by incorporating skills in problem solving, critical thinking, innovation, ICT skills and being technologically savvy, in the TVET curriculum, learning systems and approaches.
2. Implementation of the Philippine Qualifications Framework
 - a. Support the development and implementation of the K to 12 Program
 - b. Develop higher level qualifications (Diploma level) and align with other qualification levels
 - c. Organize the working committees as provided in the implementing rules and regulations
3. Strengthen TESDA - Industry Partnership
 - a. Close Collaboration with industry-specific and regional industry associations, the Makati Business Club (MBC), Joint Foreign Chambers, PCCI and other industry associations, for the identification and implementation of strategic actions to meet industry changing demands for technical education and skills development
 - b. Strengthen partnership with industry in all areas of TVET, from policy and planning, Labor market intelligence, standards development, training delivery, assessment and certification and financing
4. Strengthen and expand enterprise-based training thru:
 - a. Customization of the package of services aligned to companies' needs to facilitate access and delivery of enterprise-based programs
 - b. Targeted promotion and implementation of enterprise-based programs like dual training system (DTS), apprenticeship and learnership to industries and companies where such intervention is most appropriate
 - c. Encourage training in the workplace for skills upgrading, retooling and multi-skilling and other skills development interventions to improve productivity and flexibility of the workforce
5. Provide incentives to generate wider industry support and commitment
6. Expand and purposively direct scholarships and other training assistance to critical and hard-to-fill skills and higher level qualifications
7. Strengthen research and development in TVET