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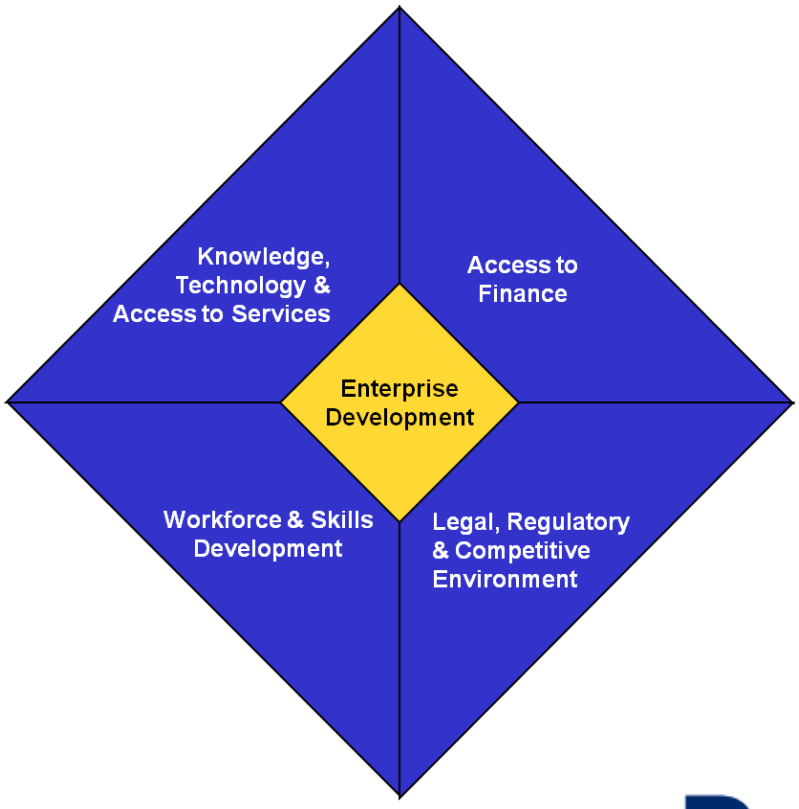
MEASURE: INDONESIA

THE ENTERPRISE DEVELOPMENT DIAGNOSTIC TOOL



BGI
BUSINESS GROWTH INITIATIVE

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Executive Summary

The Business Growth Initiative (BGI) project has developed an enterprise development diagnostic (MEASURE) to provide a tool that assists in understanding:

- Changes in business performance;
- Changes in business behavior and decision making; and
- How those changes are impacted by changes in the business economic environment, focused on the firm level.

The MEASURE tool is comprised of indicators, that when coupled with an enterprise survey, provide USAID missions, policy makers and practitioners with baseline data and comparison against other countries. The tool also segments, interprets, analyzes, and permits the monitoring of data for future enterprise development programming. Using an enterprise development framework, the indicators have also been selected for ease of measurement. Accompanying the indicators is an enterprise survey, which assists in illustrating the nature of enterprise sophistication.

In October 2010, BGI conducted an analysis of the current situation of enterprise development in Indonesia by applying the MEASURE diagnostic in four sub-sectors: garments, home furnishings, automotive parts and electronics. These sub-sectors were chosen because of their importance to Indonesia's economy, their potential for job creation and potential for continued growth. The BGI team surveyed 106 enterprises and 8 associations representing those priority sub-sectors in Jakarta, Bandung, Surabaya and Yogyakarta. Enterprises interviewed were broadly representative of the sectors in which they operated, however, geographic clusters were apparent. All four sub-sectors (automotive, garment, home furnishings and a handful of electronics firms) are clustered in and around Jakarta. In Bandung, there is a sub-sector concentration of automotive and garment enterprises. In Yogyakarta, the garment and home furnishings sub-sectors exist, and in Surabaya, the garment sub-sector predominates with a lower representation of automotive and electronics companies. While it was an initial intention was to survey the electronics sub-sector, during the MEASURE diagnostic, it was determined that few Indonesian owned/operated electronics firms exist. As such, the MEASURE team concentrated on the automotive, home furnishings and garment sub-sectors, surveying electronics companies when they could be identified. Herein after, this report will focus on surveyed findings from only those three sub-sectors.

In addition to the surveyed enterprises, an indicator benchmark "dashboard" was conducted to compare indicators representing enterprise performance, enterprise structure, enterprise sophistication, access to finance, workforce and skills development, legal and regulatory environment, competitive environment and knowledge and technology. Indonesia's performance from these economic indicators was compared against comparator countries including: Thailand, Vietnam, Philippines, Singapore, Malaysia, and China.

Based on the analysis of the data, BGI identified the following key strengths and weaknesses of Indonesia's business environment. It should be noted that MEASURE defines the business environment to be a myriad of factors that affect enterprise performance, not only the policy and regulatory environment. This is explained in the pages that follow.

Table 1: Indonesia's Business Environment Characteristics

Strengths	Weaknesses
Access to finance does not appear to be a constraint	Low enterprise sophistication as reflected in low percentages of ISO certifications
Stronger than average growth of exports	Low levels of workforce development, as reflected in lower than average percentage of firms offering formal training
Stronger than average diversification of exports	Lower than average labor productivity
Stronger than average Nature of Competitive advantage	Low production process sophistication
Above average intensity of local competition	Firm-level competitiveness may be hindered by inadequate access to technology

Unlike previous MEASURE diagnostics, this diagnostic was focused on targeted sub-sectors. As a result, key findings and trends will be delineated cross-sectorally, and by sub-sector.

Cross Sectoral positive trends included the following:

- Across all three sub-sectors, firms projected that 2010 revenues would be on par with pre-2008 revenues. This implies that most firms believe that the recovery from the 2008 financial crisis was behind them and growth lay ahead. The automotive market has seen continued growth of domestic demand between 15% and 20%. In garments, firms are seeing more orders from EU and USA markets, which firms attribute to the rising labor costs of China.
- Indonesian domestic demand continues to outpace international demand and enterprises are diversifying their market and product focus to take advantage of this increasing domestic demand trend. However, the home furnishings sector has not seen the same recovery/growth projections yet anticipates that renewed investments in Indonesian real estate development will lead to an increase in domestic demand.
- These enterprises that focus on domestic demand are seen to be as sophisticated as export-oriented firms.
- There is evidence of increased horizontal and vertical cooperation among value chain actors.

Cross Sectoral constraints included the following:

- While overall indicators suggest that access to finance is not a constraint, access to affordable finance and in amounts needed for larger capital expenditures remains a constraint. Enterprises are responding to constraints on access to finance by re-investing a substantial percentage of their profits in their businesses.
- Domestic input supply is diminishing or too poor in quality to meet local manufacturing demand. This implies that Indonesian firms are negatively impacted by long lead times, or higher production costs for goods reliant upon imported inputs.
- Many firms believe there is a mismatch within Indonesian governmental policies. As an example, in the home furnishings sub-sector, firms complain that the Ministry of Trade wants to increase exports and has allowed the export of raw rattan, which in their minds contradicts the Ministry of Industry's promotion of increased exports of value added products. They complain of difficulties in sourcing raw rattan for home-furnishings manufacturing because incentives are misaligned with rattan producers who prefer to export.

- Most firms perceive the restrictive labor regulations force them to cope with unproductive employees, lower productivity, fewer employees and thus lower competitiveness.
- Firms with locations across Indonesia (especially garment and home furnishings) believe that decentralized governance is adding unnecessary costs and impedes expansion. These same firms also point to decentralized governance as an influencer for high intra-country transportation costs.
- Export-oriented firms site poor access to business support services as an impediment to sector competitiveness.
- Export-oriented firms site foreign currency exchange fluctuations make pricing/costing and profitability difficult to calculate, thus exposing them to global competition.
- Tax restitution is slow and cumbersome. Many firms respond that it takes over one year to receive owed tax rebates from the government. As such, working capital is tied up unnecessarily and unavailable to firms to use for other investments or expansion.

Home Furnishings constraints included the following:

- As sited above, many home furnishings firms are experiencing a diminishing input supply of raw materials. These materials include; rattan, teach and Sustainable Furnishings Council (SFC) certified wood. Firms reliant upon rattan as a raw material state it easier (and less expensive) to source rattan from China than from within Indonesia.
- Export-oriented home furnishings companies admit to a limited knowledge of global market demand and trends
- Firms in this sub-sector have difficulties in accessing affordable financing because the banking industry in Indonesia views home furnishings as a „sunset' industry

Garment constraints included the following:

- As with the home furnishings sub-sector, firms in this sub-sector have difficulties in accessing affordable financing because the banking industry in Indonesia views the garment and apparel sub-sector as a „sunset' industries
- Local ginning and spinning of cotton does not keep up with local demand, nor is it produced in the quality required to meet international specifications, thus there is an increasing reliance on imported textiles.
- The diminished local textile production is exacerbated by rising prices of cotton globally. There was a 56% increase in cotton prices from July to October 2010, thereby raising costs for manufacturers who rely in imported cotton to meet international orders.
- Firms seeking market diversification struggle to understand and thus comply with differing market requirements. Firms divulge that buyers in USA markets are more concerned with social requirements while buyers in EU markets concern themselves with environmental requirements. This forces Indonesian firms to undergo multiple certification requirements, adding costs to production.

Automotive constraints included the following:

- Unstable prices and inconsistent quality for locally produced raw materials, specifically steel
- Older machinery has led to decreased productivity for lower tier manufacturers
- Foreign principles dictate operating margins and inputs coupled with high capital investment requirements to enter 1st tier production. This implies that the automotive market has an unequal distribution of firms who operate on low margins, serving 1st tier manufacturers who control domestic production.
- Shortage of highly skilled workers to improve operational productivity.

MEASURE is intended primarily as a diagnostic tool. When its results are applied in the context of analyzing business responses to changes in the firm-level business environment, logical entry-points emerge. By taking into consideration these entry-points, and expected business responses, MEASURE can be utilized as a resource for developing strategies and programs to improve enterprise development, and ultimately economic growth, for the country.

Results from MEASURE also indicate that, in response to country weaknesses, Indonesian firms have developed several coping strategies:

In response to poor access to working capital and investment capital, Indonesian firms are:

- Holding off expansion or new product plans, and planning twelve months out until financing is secure, and
- Seeking investments form regional neighbors (ASEAN as well as Taiwan and Singapore banks and investors).

In response to diminishing domestic supply of inputs, Indonesian firms are:

- Stockpiling inputs when found and sourcing from ASEAN countries when needed

In response to lower productivity, Indonesian firms are:

- Enhancing compensation/incentive plans to spark productivity increases,
- Reinvesting in machinery and new technologies to improve efficiencies, and
- Hiring outside consultants to improve productivity and solve operational inefficiencies;

In response to slow tax restitution, Indonesian firms are:

- Investing in improved accounting systems to keep better records, obtain quicker responses and higher restitution amounts.

In response to perceived restrictive labor regulations, Indonesian firms are:

- Outsourcing production, hiring higher percentages of contract labor, or investing in innovative pension schemes

Introduction and Purpose

The Business Growth Initiative (BGI) enterprise development diagnostic (MEASURE) provides USAID missions with an understanding of country-level business performance, attitudes, decision-making, and the effect of the firm-level business environment on businesses' performance and choices. MEASURE's objective is to describe **how** business decision-making and performance within an economy are influenced by the firm-level business environment, including access to skills, services and knowledge. It should be noted that MEASURE defines the business environment to be a myriad of factors that affect enterprise performance, not only the policy and regulatory environment. This is explained below.

MEASURE is differentiated from other diagnostic tools and indices such as USAID's Country Analytical Surveys (CAS), USAID's Commercial, Legal, and Institutional Reform Assessments (CLIR), the World Economic Forum's Global Competitiveness Reports (GCR), and the World Bank's Doing Business indicators. Whereas these other diagnostic tools and indices focus on regulatory environments and laws (CLIR); the time, cost and complexity of operating a business (Doing Business); or provide a macroeconomic analysis of the business enabling environment in a country (CAS); MEASURE provides insight into how well enterprises are growing and succeeding in the enterprise-specific environment and how their strategies and decision making evolves. To do so, the following research questions are asked:

1. How can we measure the structure, sophistication and performance of the enterprises in a given country (size, profitability, growth, exports, market penetration, etc.)?

2. If recent changes or improvements are made to the business environment, are enterprises responding the way we would expect (with more start-up activity, increased investment, increased exports, etc.)?

3. What choices, decision-making and other behaviors would we expect to see at the enterprise level if enterprises are responding as expected to improvements in the environment? (Expected answers would include: internal training of employees and increased skills levels, more sophisticated strategies, higher price points, increased market linkages, and a better understanding of the end market needs.)

By answering these questions, MEASURE highlights the internal strengths and weaknesses among enterprises and indicates whether policy changes are targeting the biggest constraints for enterprises in the country.

Results from the MEASURE diagnostic can be used to inform the design and implementation of programs that target enterprise growth as core or contributing outcomes. The diagnostic allows USAID missions (particularly those missions with scarce access to economic analysis) to benchmark many of their country's performance and business environment characteristics against those of comparison countries.[1] Such comparisons provide opportunities to assess the enterprise-level impacts of various patterns and characteristics of firm-level business environments, and offer opportunities to learn and draw from model project activities and designs. MEASURE is designed to assist in project design activities by identifying constraints

[1] Comparison countries can be selected based on characteristics such as: regional significance, income-based, economic or structural similarities, countries of special interest, etc. For this diagnostic, the comparison countries are: Azerbaijan, Georgia, Turkey, Estonia, and Israel.

within enterprises and in the relevant firm-level business environment in which they operate. Additional uses of the tool include: establishing baseline data from which to track and monitor the impact of improvements in the firm-level business environment on enterprise development (especially decision making) and helping USAID missions and others recognize possible actions to maximize greater enterprise development.

BGI has developed a definition as well as a key objective and proposition for sustainable enterprise development drawing from an extensive literature review, along with input from thought leaders in economic and private sector development.

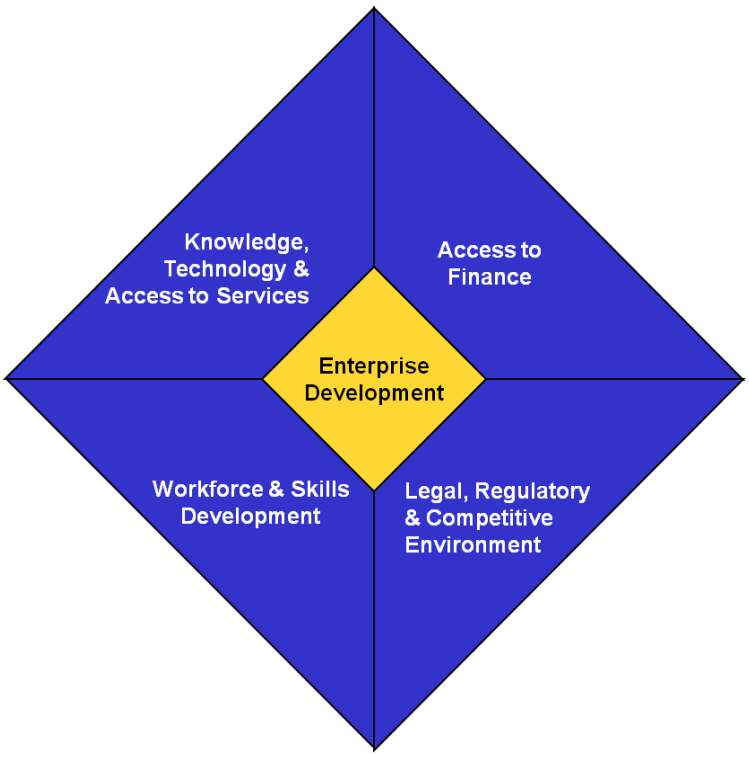
> ***Definition:*** *Enterprise development aims to improve business opportunities and incentives for individual firms and the private sector generally and to strengthen their capacity to create wealth, expand, and operate in the formal economy.*
>
> ***Corollary #1:*** *Enterprise development enhances private sector performance as a means to reduce poverty and foster a more equitable distribution of income by increasing rates of economic growth, enterprise growth, and employment.*
>
> ***Corollary #2:*** *Sustainable enterprise development initiatives include measures to improve the business enabling environment and strengthen vertical and horizontal linkages for improved performance.*

The MEASURE Framework

The core component of the MEASURE framework includes indicators of business behaviors and decision-making with respect to strategies, investment in human resources, willingness to collaborate, investment in productive processes and other factors of performance. The MEASURE framework looks at enterprise level responses to four enablers. Each enabler reinforces the development of enterprises, which is the centerpiece of the framework.

The four enablers of the MEASURE framework focus on improving business opportunities and incentives, while strengthening the capacity to create and expand enterprises in the formal economy. These elements include: a **supportive legal, regulatory, and competitive environment**; **access to finance**; the presence of **sophisticated knowledge and technology**; and **access to a workforce of educated and technically competent human capital**. For each enabler, there are corresponding indicators. Together, these four enablers combine to support enterprise development and growth.

Enterprise Development Diagnostic Framework



Through the lens of the enterprise development diagnostic framework, the MEASURE tool is comprised of relevant indicators, appropriate for segmentation, interpretation and analysis, and a corresponding enterprise survey. The indicators are selected for ease of measurement and comparability, and provide a snapshot of the enablers that support the state of enterprise in a given country. The enterprise survey provides depth, validation, and in some cases clarity, to the country indicators and illustrates the country's level of enterprise sophistication, performance and landscape.

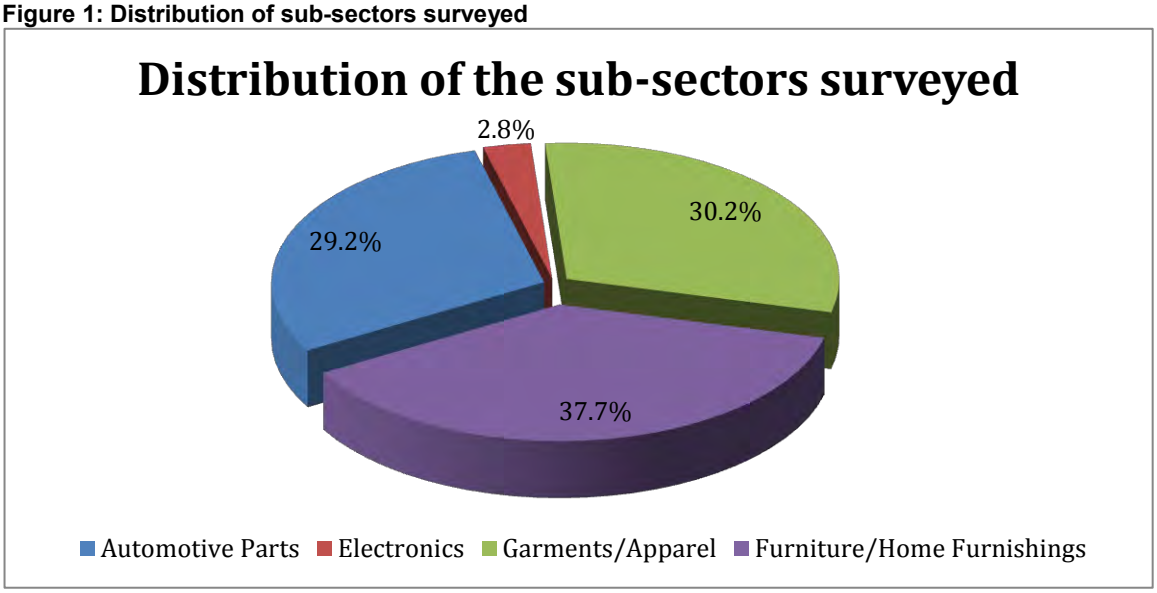
In October 2010, BGI was contracted to provide an analysis of the current situation of enterprise development in Indonesia by applying the MEASURE diagnostic in four sub-sectors: garments, home furnishings, automotive parts and electronics. These sub-sectors were chosen because of their importance to Indonesia's economy, their potential for job creation and potential for continued growth. The BGI team surveyed 106 enterprises representing those priority sub-sectors in Jakarta, Bandung, Surabaya and Yogyakarta. Enterprises interviewed were broadly representative of the sectors in which they operated; however, geographic clusters were apparent. All four sub-sectors (automotive, garment, home furnishings and a handful of electronics firms) are clustered in and around Jakarta. In Bandung, there is a sub-sector concentration of automotive and garment enterprises. In Yogyakarta, the garment and home furnishings sub-sectors exist, and in Surabaya, the garment sub-sector predominates with a lower representation of automotive and electronics companies. While it was an initial intention of to survey the electronics sub-sector, during the MEASURE diagnostic, it was determined that few Indonesian owned/operated electronics firms exist. As such, the MEASURE team concentrated on the automotive, home furnishings and garment sub-sectors, surveying electronics companies when they could be identified. This report summarized the information and findings from the diagnostic.

Overview of Targeted Sectors in Indonesia

As BGI was instructed to focus the MEASURE diagnostic on targeted sub-sectors, to ensure statistical validity, BGI sought to interview a minimum of 30 firms per sub-sector, spread geographically across Java Island in Indonesia. Overall, the broad breakdown of formal sector enterprises included:

- Automotive – 31 firms equating to 29.2% of respondents;
- Garments/Apparel – 32 firms equating to 30.2% of respondents;
- Home Furnishings – 40 firms equating to 37.7% of respondents; and
- Electronics – 10 firms, of which only 3 were Indonesian owned/operated equating to 2.8% of respondents.

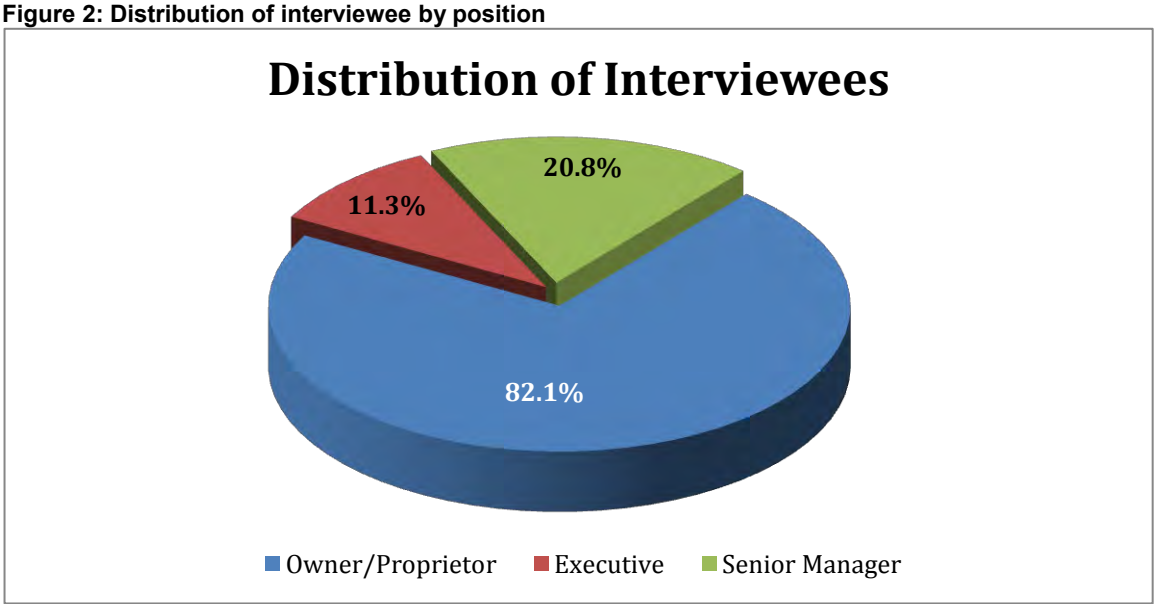
Figure 1: Distribution of sub-sectors surveyed



Because of the low representation of electronics firms, these three firms were surveyed but their responses were not taken into consideration within the MEASURE diagnostic. An overview of the electronics section is included in Appendix 4.

Of those surveyed, 82.1% were owner proprietors, 11.3% were Executives in their enterprises and 20.8% were Senior Managers.

Figure 2: Distribution of interviewee by position



Indonesia's Indicators at a Glance

The complete list of MEASURE indicators, and their corresponding definitions, is found in Appendices 1 and 2, respectively. Table 2 highlights the strengths and weaknesses[2] of Indonesia's indicators when compared to regional comparison countries: Thailand, Vietnam, Philippines, Singapore, Malaysia, and China.

Indonesia's notable stronger indicators include:

- Percentage growth of exports;
- Stronger than average diversification of export industries;
- Higher than average competitive advantage; and
- Above average intensity of local competition

Indonesia's areas of noticeable weakness include:

- Poor access to finance (venture capital);
- Low levels of workforce development;
- Lower than average labor productivity and production process sophistication; and
- Limited access to communication technologies.

Table 2: Indonesia's Indicators at a Glance

Indicators at a Glance: Strengths and Weaknesses (against indicator benchmarks and comparison countries)		Strength	Weakness
Enterprise Performance			
1	Growth of Exports (2008 / 2000-2008)	√	
2	Labor productivity per person employed		√
Enterprise Structure			

[2] Indonesia's strengths are defined as areas in which its indicators are better than its comparison countries, or better than the median indicator value. Indonesia's weaknesses are defined as areas in which its indicators are worse than its comparison countries, or less than the median indicator value. Lack of a check mark in either box suggests that the area is neither a particular strength nor a particular weakness.

3	Number of SMEs per 1,000 inhabitants	Not Available	
4	Diversification of Export Industries (% concentration in top 3)	√	
5	Informality (1 low, 7 high)	Not Available	
Enterprise Sophistication			
6	Production Certifications as a % of total firms		√
	Proactive Strategy		
7	Control of distribution (7 high, 1 low)		
8	Production process sophistication (7 high, 1 low)		√
9	Extent of Marketing (7 high, 1 low)		
10	Degree of Customer Orientation (7 high, 1 low)		√
11	Value Chain Breadth (7 high, 1 low)		
Access to finance			
12	Access to loans (7 high, 1 low)		
13	Access to equity (7 high, 1 low)		
14	Access to venture capital (7 high, 1 low)		√
Workforce & skills development			
	Training of Workforce		
15	Extent of Staff training (7 high, 1 low)		√
16	% of firms offering formal training (where available)		√
17	Local availability of Research & training services (7 high, 1 low)		
18	Brain drain (7 less, 1 more)		
Legal & regulatory environment			
19	Regulatory Quality (percentile)		√
Competitive Environment			
20	The Nature of Competitive Advantage (7 high, 1 low)	√	
21	Buyer Sophistication (7 high, 1 low)		
22	Cluster Development (7 high, 1 low)		
23	Intensity of Local Competition (7 high, 1 low)	√	
Knowledge and Technology			
24	Internet users per 100 pop.		√
25	Mobile telephone subscribers per 100 pop.		√
26	Capacity for Innovation (7 high, 1 low)		
27	Adoption of Technology (7 high, 1 low)		

While the above strengths and weaknesses suggest that enterprises struggle to attain competitiveness internationally, a closer look highlights very interesting patterns, and the survey responses provide informative anecdotes. What follows is a more detailed look at the state and nature of enterprises in Indonesia, as well as firm-level responses to Indonesia's enabling environment.

Measuring the State of Enterprise Development in Indonesia

MEASURE assesses the state of enterprise development by determining the performance of enterprises, the structure of enterprises and the landscape in which they operate, and, ultimately, the sophistication of those enterprises.

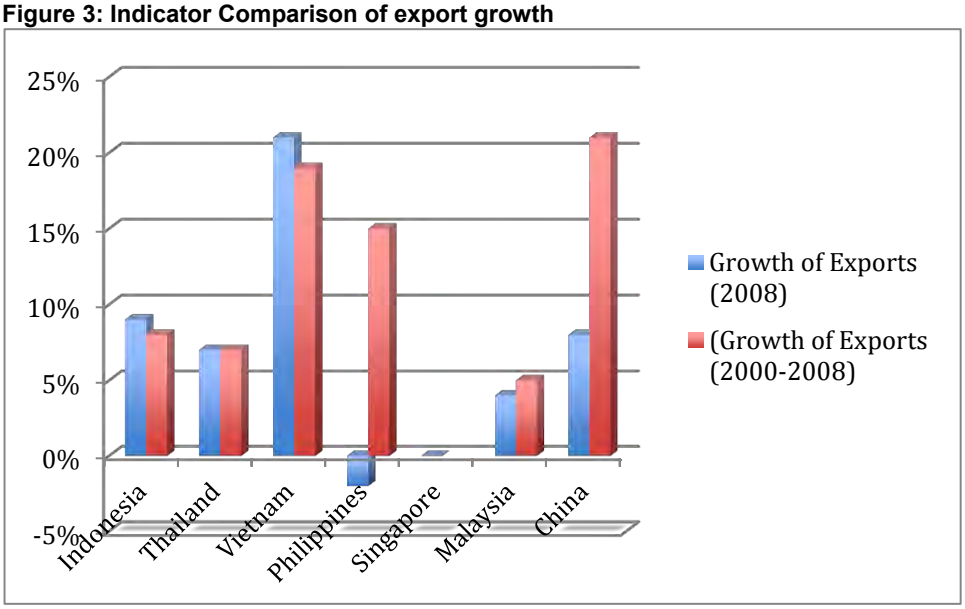
Enterprise Performance

MEASURE interprets enterprise performance by the number and types of activities the enterprises are performing, the size and growth of exports, the labor productivity of those enterprises, and, the relative profitability of the enterprises in comparison to competitors in other economies. To assess these attributes, the following indicators have been used:

- *Size & growth of exports* and
- *Labor productivity.*

Indonesia performs well on both of these indicators. Its growth in exports in 2008 and over the period dating 2000 to 2008, according to the World Trade Organization (WTO), is 9% and 8%, only lagging behind Vietnam and China. Indonesia also performs relatively well in diversification of export industries (as a percentage of top three exports) when compared to comparator countries. This implies that Indonesia's pro-export policies have resulted in positive gains in exports as a percentage of GDP contribution.

Figure 3: Indicator Comparison of export growth



In terms of annual sales, 19.8% the highest representation of firms surveyed had 2009 annual sales between $1m-$3m. Likewise, the highest percentage of firms surveyed derived 91% to 100% of their sales from domestic markets (49 % of firms). This can be accounted for because the automotive market is 100% sold domestically and the home furnishings market is strongly dependent on domestic sales for growth. Only the apparel sector is heavily reliant on international sales.

Indonesian firms also see „the light at the end of the tunnel' after recovering from the 2008 global financial crisis. Many firms believe that 2010 revenues will meet pre-crisis levels, and 19.8% of respondents (the highest representation of firms) expect sales revenues to increase by 21% to 30% for 2010. This suggests that these sub-sectors remain healthy and are growing.

Export Growth

For those companies selling internationally, the spread of firms selling as little as 6-10% of their goods and services to selling as much as 100% of their goods and services were almost equal, representing 7% of firms respectively and 14% combined.

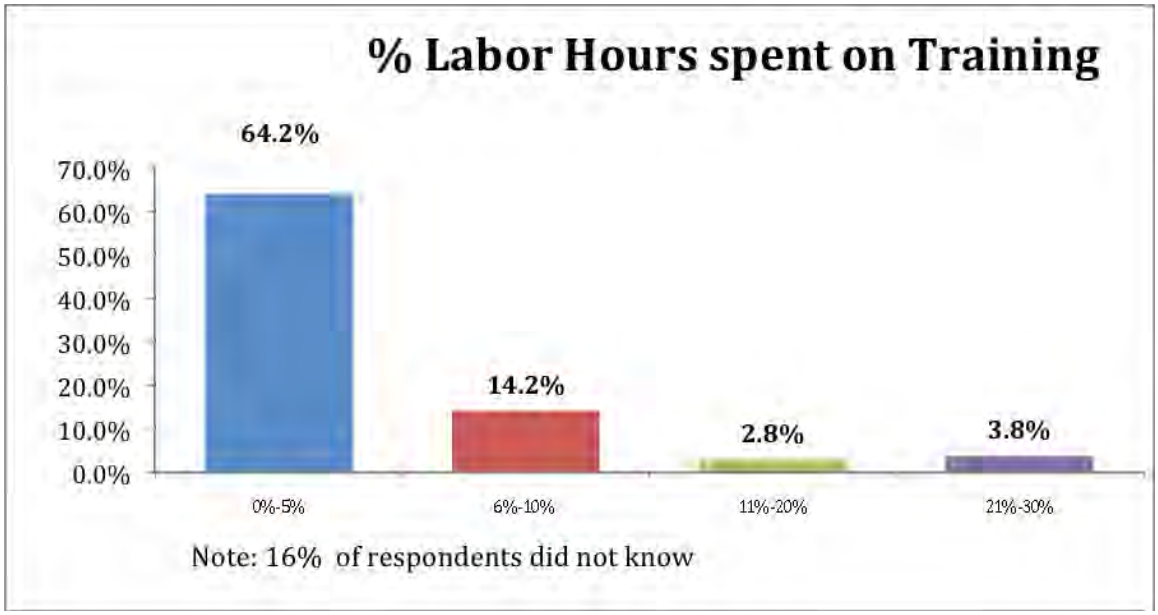
Exchange rates and currency fluctuations were listed as a major impediment to firms that export. 53.8% of firms listed this as a significant constraint to them doing business internationally. The strength of the rupiah was identified as the source of this problem with many firms desiring that the Indonesian Central Bank peg the rupiah to an amount they can predict in order for their profits to increase. However, though this was often recommended as a course of action, many firms realized that it was an unrealistic expectation for the Indonesian Central Bank to act on this recommendation, thus they hedge against the exchange rate when making orders and providing cost estimates to international buyers in order to maintain profit margins. 30.2% of firms expected profits ranging from 11-20% margins.

Labor Productivity

Indonesia lags behind all comparator countries save Vietnam and the Philippines in terms of labor productivity. In the apparel sector, one firm who recently hired international consultants to improve employee productivity was informed that if China's productivity value was 100%, Malaysia's was 79% and Indonesia's productivity was 60%. Firms across sub-sectors surveyed believe it is Indonesia's restrictive labor policies that contribute to lower productivity. These sectors are heavily reliant on manual labor, but believe that the labor laws are too heavily favored towards employees. Thus, poor performers are „insulated' from corrective action, which would improve their performance or otherwise remove them from their positions.

Despite low levels of productivity, many firms are unwilling to invest in on the job training and skills upgrading. Most firms, (64.2%) admit that between 0 and 5% of total labor hours are spent on training. Again, they site the restrictive labor laws as the reason for this lack of training. Firms do not see the value in training employees who stand to gain from skills upgrading and therefore can leave, as employees desire without the firm realizing productivity gains.

Figure 4: Percent of Labor Hours spent on Training



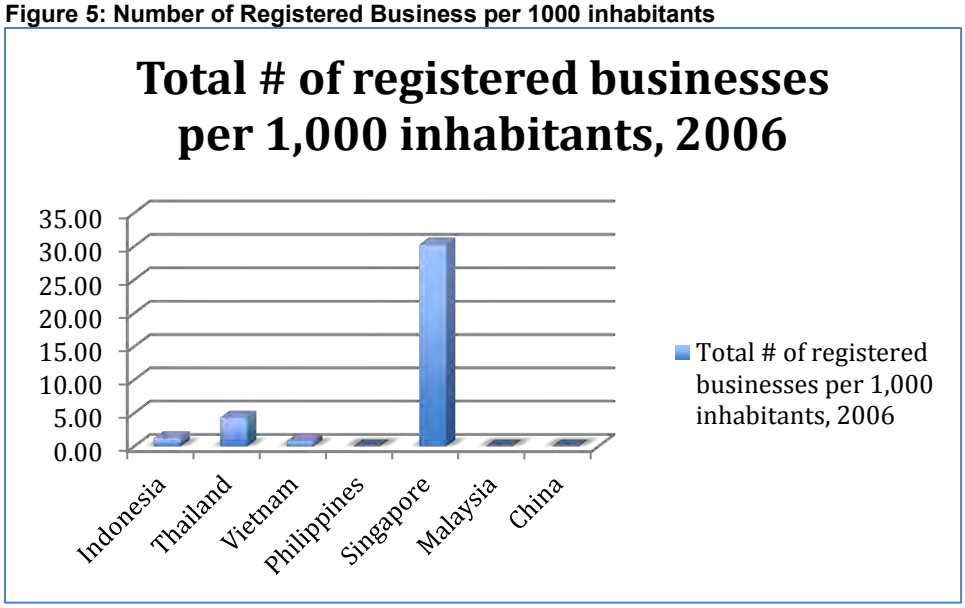
Structure and Enterprise Landscape

The distribution and evolution of firm size, the degree of formality, entrepreneurship and private ownership, and, the density and diversification of export industries characterize the structure and landscape of enterprises. In the past, MEASURE assessed these indicators to determine the enterprise structure and landscape.

- *Firm size*,
- *Diversification of export industries*, and
- *Informality*.

However, the indicator dashboard is reliant upon readily available data. The Informality indicator is no longer available. Firm size is likewise no longer an indicator with data readily available for many countries, thus, BGI attempted to replace firm size with number of SMES per 10000 inhabitants (based in WDI). Unfortunately, even this indicator is not readily available to all comparator countries in the MEASURE diagnostic. Among those countries with data available, Indonesia lagged Singapore and Thailand with registered SMEs.

Figure 5: Number of Registered Business per 1000 inhabitants

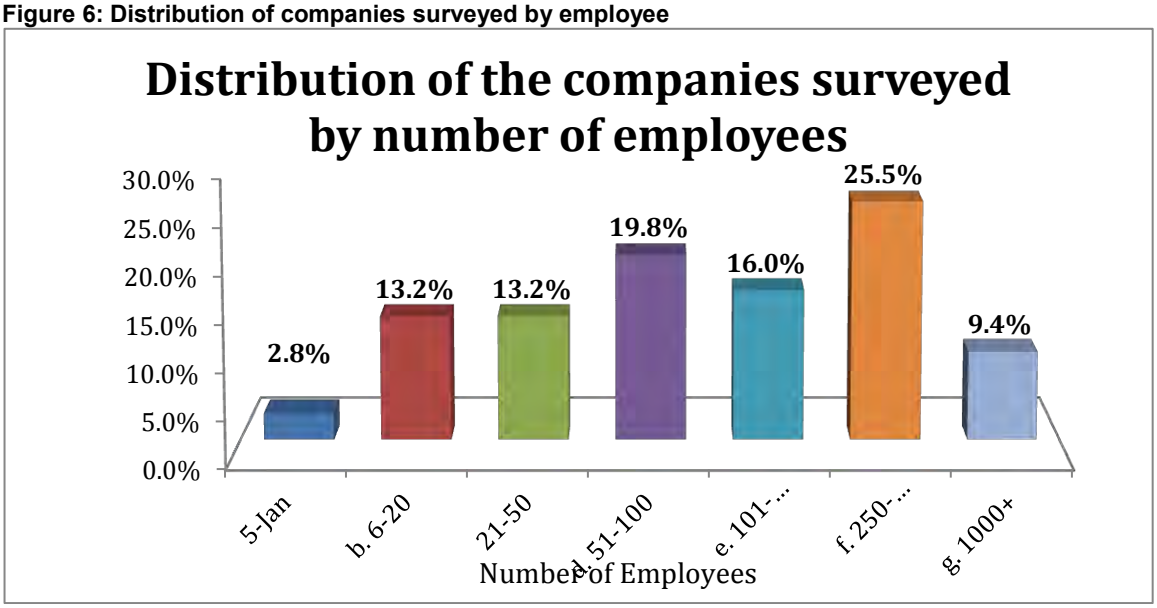


Firm Size

Indonesia's formal small and medium enterprises (SMEs) per 1,000 inhabitants,[3] ranking was 1.22, compared to Thailand's ranking of 4.32, Vietnam's ranking of .76 and Singapore's ranking of 30.27. This could suggest that Indonesia's economy is largely informal, however, as the world's 4th most populated country, this indicator does not tell an entirely clear story. The firms surveyed varied in size; approximately 29.2% would be considered SMEs if firms up to 100 employees are considered; another 35.8 % would be considered medium sized if firms with up to 250 employees are considered, and 34.9 would be considered as large business, with over 250 employees. The figure below shows the distribution of firms surveyed by size.

[3] WDI 5.1.

Figure 6: Distribution of companies surveyed by employee



Additionally, of the firms interviewed, 69.8% of firms had been in business for more than 10 years, indicating that, despite the number of SMEs, there are a number of entrenched, larger enterprises.

Diversification of Exports

Indonesia also performs higher than average in the diversification of its exports, with its top 3 exports representing 48.9% of its total export base. Markets in Western Europe represented the largest share of exports (40.6%), with North America following at 34.9%. The ASEAN region rounded out the top three destinations for Indonesian exports, representing 27.4%. Of those firms that export, most did not know the percentage of the global market, their good represented.

Enterprise Sophistication

In order for enterprise development efforts to be considered successful, the degree of enterprise sophistication must be enhanced. As described by Michael Porter, "the productivity of companies depends on the sophistication with which companies compete."[4] Increased sophistication is revealed by the forward-looking choices that enterprises make and the extent to which enterprises are investing in becoming more productive: training the workforce, adopting new technology, obtaining production certifications and investing in research and development. Sophistication is also evident in the degree to which enterprises proactively develop networks and pursue strategies to serve current markets in new ways and penetrate higher value markets. These characteristics are compared using the following indicators:

- *Production certifications,*
- *Proactive Strategy,*[5] and
- *Extent of value-add activities (value chain breadth).*

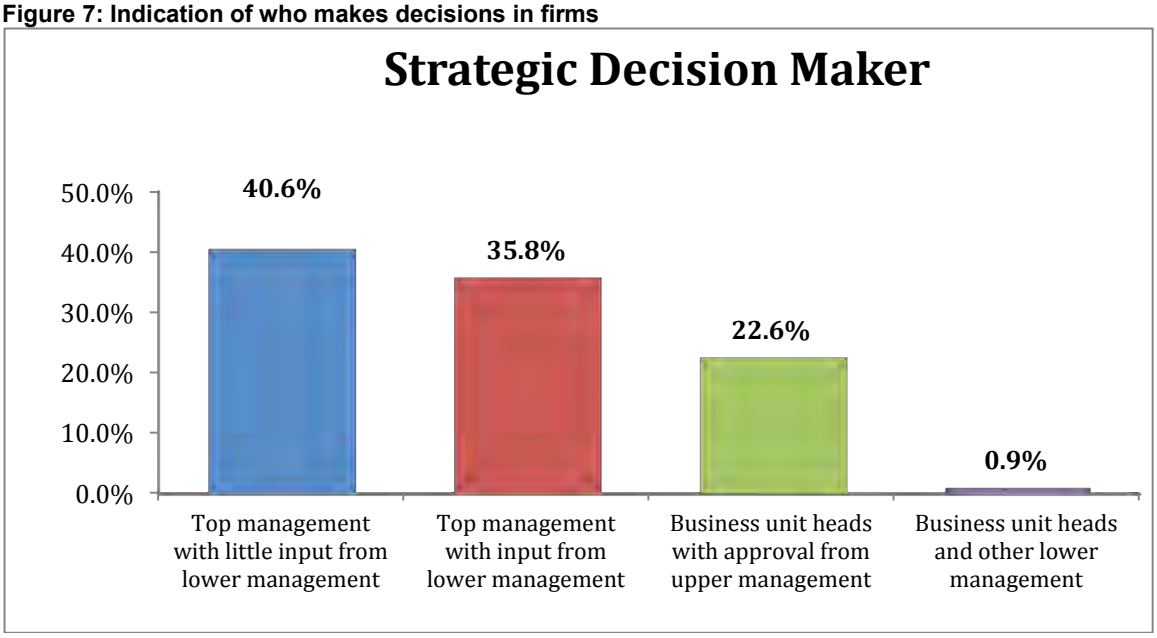
[4] Porter, Michael, with C. Ketels and M. Delgado. 2007. "The Microeconomic Foundations of Prosperity: Findings from the Business Competitiveness Index." *The Global Competitiveness Report 2007-2008*. London: Palgrave Macmillan. 51-81.

[5] MEASURE attributes the following Global Competitiveness Report indicators as contributors to proactive strategy: a) control of distribution, b) production process sophistication, c) extent of marketing and d) degree of customer orientation.

Indonesia's enterprise sophistication levels were generally on par with comparator countries, save one noticeable low mark; percentage of firms with product certifications as a percentage of total firms, discussed in the next section.

In terms of decision-making, Indonesian firm-level decision-making is spread among top management, with input from line supervisors. This is encouraging, suggesting that firms with more input from lower level management make more informed decisions concerning operational and product-development changes.

Figure 7: Indication of who makes decisions in firms



However, few firms engage in any kind of long-term strategic planning; nearly 67.9% of firms plan more than 3 months out. This can sometimes lead to bad strategies (or no strategies) and at times leaves firms vulnerable to global shifts in demand and firm-level instability. A comment frequently heard from firms was that the rapidly changing environment (exchange rate risk, global financial crises) made meaningful strategic planning nearly impossible. Interestingly this was a similar sentiment for firms in Indonesia.

Production Certifications

As mentioned previously, this indicator was one of the lowest for Indonesia when compared to all indicators compared in the diagnostic. Indonesian firms ranked 2.88% in production certifications as a percentage of overall firms (compared to an average comparator ranking of 27.37%). This low ranking can be attributed to several factors. First, while certifications are a prerequisite for Tier 1 auto manufacturers, lower tier producers do not require certifications in order to supply the market. Tier 1 manufacturers are only required to obtain ISO 9000. Secondly, in the home furnishings sector, only those seeking certification under Indonesia's eco-friendly standard Sustainable Furnishings Council (SFC) Certification seek certification. Thirdly, in the apparel sector, there are no certification standards for firms serving the local market. Export oriented firms also do not require certifications, rather they are required to comply with buyer-prescribed „standards', and these standards vary by buyer and buyer origin. For instance apparel companies seeking to market to EU countries must comply with EU-oriented environmental standards. Conversely firms seeking to market to the USA must comply

with USA-oriented „social' standards. These standards include demonstrating workers are not under-paid, work suitable hours, receive other socially related benefits, and are not seen to be exploited. Apparel exporters commonly suggested that complying these varying standards adds unnecessary costs to their operations, and also sited that even within the USA market, social standards vary from firm to firm.

For all but Tier 1 auto manufacturers, the barrier to acquiring certifications and complying with standards is costs. Firms must invest in international consultants to prepare them for compliance, and so firms choose carefully which markets to export to, and thus which certifications are absolutely necessary for doing business. Previous projects (SENADA) provided technical assistance to export-oriented firms in certification preparation but when that project ended, firms were left to fend for themselves to understand these requirements, leaving many to go without certification altogether.

Proactive Strategy

MEASURE uses the following Global Competitiveness Report (GCR) indicators as contributors to proactive strategy: the control of distribution, production process sophistication, and extent of marketing and the degree of customer orientation. Indonesia lags behind comparison countries, in some cases dramatically, on these measures.

Control of Distribution

Indonesia's export-oriented firms generally have limited control over international distribution channels. Mainly because of those sub-sectors surveyed, both apparel manufacturers and home-furnishings manufacturers operate in buyer-directed markets. Meaning, these firms predominately respond to buyer orders, shipping to buyer-directed agent designees. However, Indonesia's score in this indicator was on par with comparator countries.

Production Process Sophistication

Likewise, Indonesia scored on par with comparator countries in production process sophistication, at 4.0 (4.11 as the average). Most apparel and home-furnishings firms believe that their production processes were equivalent to ASEAN countries. Only in the automotive sector did firms believed that their production processes were less than equivalent than Asian neighbors (Japan and Korea). This is understandable as these two countries are the OEMs driving the automotive sector in Indonesia.

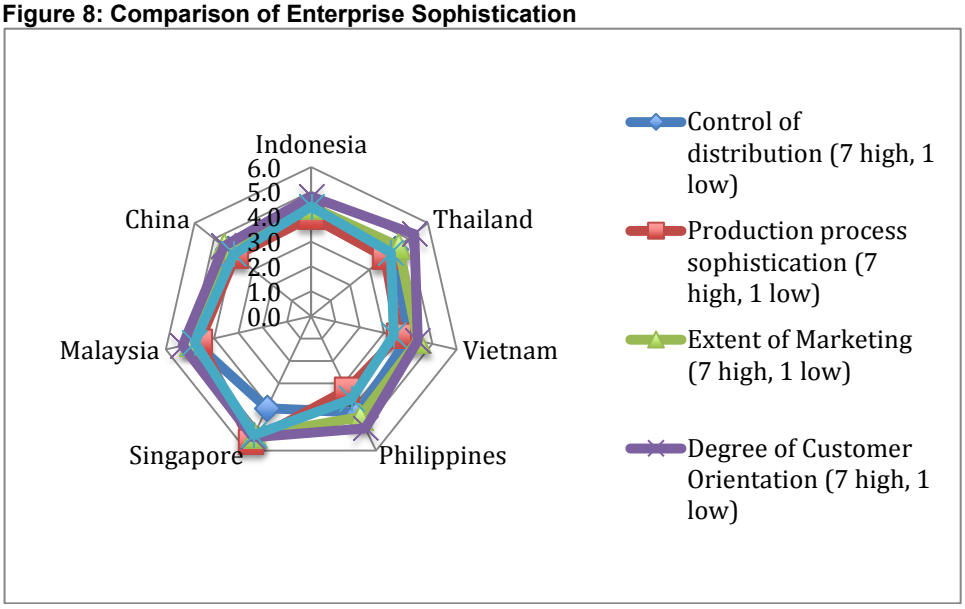
Extent of Marketing and Degree of Customer Orientation

Again, Indonesia scored slightly below par with comparator countries in extend of market and degree of customer orientation, with scores of 4.4 and 4.8 (against comparator averages of 4.6 and 4.9)

This is also reflected in the survey responses. 24.5% of respondents acknowledged that they had no marketing plan at all; while only 14.2% felt that theirs could be qualified as "good" or "very good." Most sited the dynamics of their business as reasons for not having marketing plans. The vast majority of firms (70.8%) indicated that they received their market information directly from either end customers or the principal purchaser of their product. For those firms operating in buyer-directed markets, they saw little need on investing in marketing plans. However, after the global financial crisis these same firms admitted that had they not sought out new markets or sought to diversify their end-markets they would not have survived. Unfortunately, these supply responses were knee-jerk reactions to what was transpiring globally, not because of planning and foresight.

Indonesia's competitive position relative to comparison countries on each of the four proxies for the Porter Diamond, using GCR data, is presented in the figure below.

Figure 8: Comparison of Enterprise Sophistication



Indonesians invest little in market information. When asked separately in what areas they firms reinvested profits, only 15.1% of firms reinvest profits on advertising and promotion; and only 1.9% firms reinvest in market information.

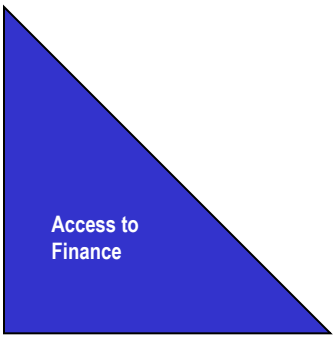
Value Chain Breadth

Value chain breadth is the degree to which a country's exporting companies are primarily involved in resource extraction or production rather than performing higher level functions such as product design, marketing, sales, logistics, and after-sale services. Indonesian enterprises again score poorly on this measure; with all five comparison countries doing better.

Indonesian firms scored slightly higher than average (4.4, against comparator average of 4.2) in value chain breadth. Most firms in the apparel sector, for instance note that while their productivity may not be as high, quality is a competitive advantage over neighboring countries. 83% of Indonesian respondents recognize the importance of value addition as a critical success factor. Most apparel firms admit that they do no worry about competition from China on exports for apparel noting that while China's goods are cheaper, their not that much cheaper than goods produced in Indonesia, while China's quality is noticeably lower than goods produced in Indonesia. Indonesian firms that try to compete against China on low cost/low margin goods, such as underwear and simple knit tops cannot obviously compete. However, many Indonesian firms produce goods (such as woven tops, jeans with detailed needle work) that require skilled labor, and thus they find themselves competing against Vietnam or Malaysia. Select firms in the apparel sector seek out niche markets, such as lingerie or higher-margin lounge wear to protect against intra-regional cannibalization and admit to healthy sales and higher margins.

Access to Finance, Equity and Venture Capital

MEASURE defines access to finance as an enterprise's access to capital, whether debt or equity. Access to finance is a precondition for the creation of new enterprises, investment and growth, and allows existing enterprises to reach scale, thereby increasing their capacity to increase profitability and generate employment. Its absence is often mentioned by enterprises as their greatest obstacle to growth. Enterprise access to finance is measured by three indicators:



- *Access to Loans*,
- *Access to Equity*, and
- *Access to Venture Capital.*

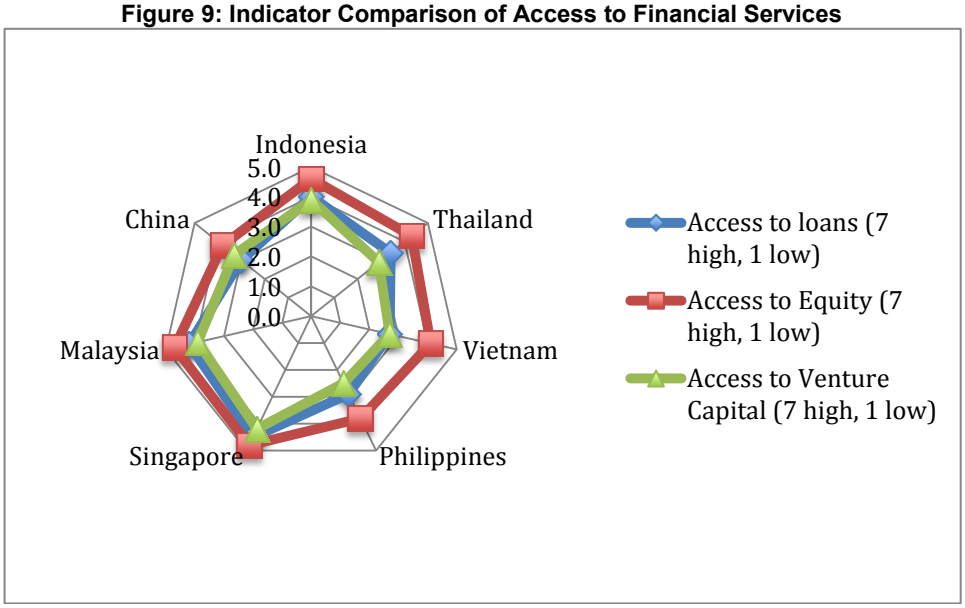
Again, MEASURE indicators reveal that Indonesia ranks on par with comparator countries in access to finance. In Access to Loans, Indonesia's ranking was 4.0 (against an average comparator ranking of 3.52) with Singapore and Malaysia scoring higher at 4.5 and 4.2 respectively. In Access to Equity Indonesia scored above the average of 4.3 with a score of 4.6. In Access to Venture Capital Indonesia scored above the average of 3.3 with a score of 3.9.

Nevertheless, while access to loans, equity and venture capital do not seem to be a problem when measuring indicators, this does not reflect the entire picture. Indonesian firms admit that it is easy to get access to loans. What they lament is that access to affordable credit is the main impediment to firm upgrading. According to Indonesian firms, banks view both the apparel sub-sector and home furnishings sub-sectors as sunset industries. This means that while they can get loans, the interest rates offered by banks are too high and the costs of those loans are too great.

To compensate for these higher than desired interest rate loans (estimated nominal rates of up to 16%) firms reinvest most of their profits back into operations to upgrade machinery. While good, firms admit that if they want to expand, purchase new machinery, or add jobs, they can only do so after several years of profits, or do so incrementally. These firms feel that with better access to affordable financing they can react more quickly to changing market demands and grow faster. Some firms also compensate for their inability to acquire domestic financing by seeking out banks within the region. Taiwanese and Singaporean banks were two destinations sought after by Indonesian firms seeking debt financing. Though access to equity is not so difficult, most Indonesian firms do not wish to divest ownership in their companies in order to acquire this type of financing.

Indonesia's access to finance rankings is illustrated in Figure 9 below.

Figure 9: Indicator Comparison of Access to Financial Services



Workforce and Skills Development

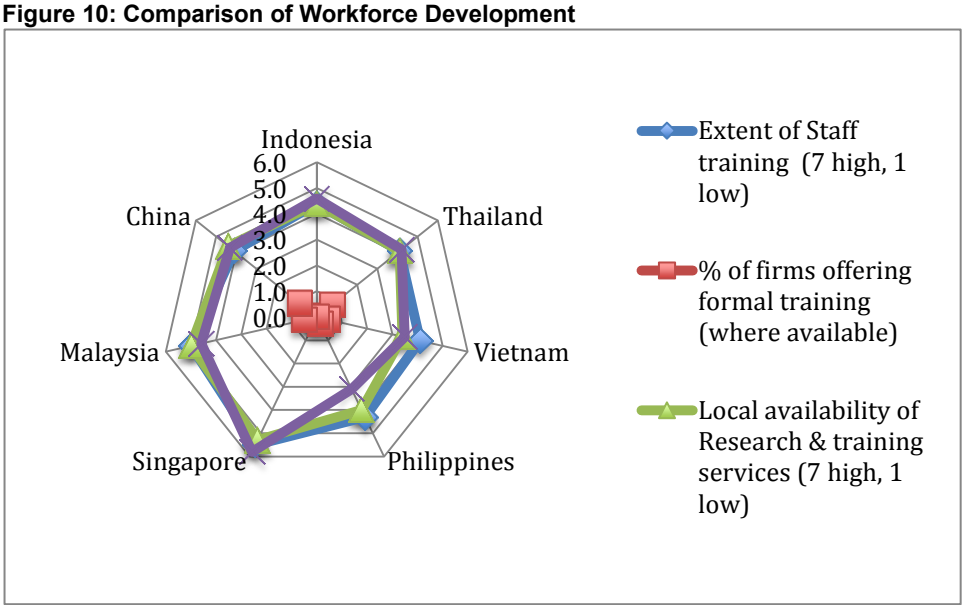
A skilled workforce has become an increasingly critical element for competitive enterprises. The rapid spread of globalization demands that enterprises produce increasingly sophisticated products, which in turn demands an increasingly specialized workforce with relevant skills. These skills are determined by the quality of the educational system that produces people with basic training and numeracy skills, and serves as a foundation upon which other skill sets can be built. Some important elements in a strong workforce initiative include providing relevant technical and management skills (a workforce that offers relevant skills that respond to the demands of the market), retaining talent (keeping those who have acquired the requisite skills), and working in an environment that possesses labor market flexibility (maximizing a company's access to a productive labor pool to respond to a dynamic market).

Indonesia's state of workforce development is measured through the following MEASURE indicators:

- *Extent of Staff Training*
- *Percentage of firms offering formalized training*
- *Local Availability of Research and Training Services*, and
- *Brain Drain*.

MEASURE indicators demonstrate that Indonesia is on par with most workforce and skills development indicators, the country lags significantly behind its comparator countries in percentage of firms offering formalized training.
Indicators in extent of staff training rank Indonesia at 4.4, slightly below the comparator average of 4.5 Indicators for local availability of research and training services rank Indonesia at 4.4, slightly above the comparator average of 4.3 Indonesia's brain drain indicator ranks at 4.6 which again is above the comparator average of 4.3.

Figure 10: Comparison of Workforce Development

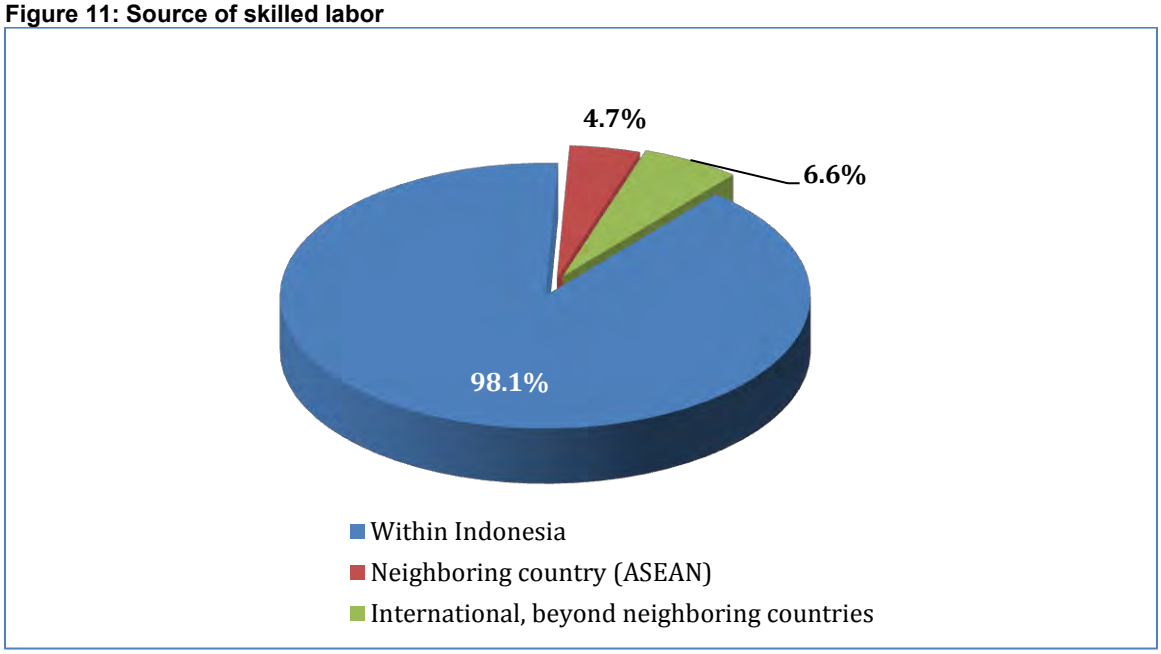


Where Indonesia falls glaringly short in workforce and skills development rankings is in the percentage of firms offering formalized training. Indonesia's score in this indicator is 4.73% against a comparator average of 48.5%. Why are Indonesian firms so apparently unwilling to invest in formalized training and ongoing skills development? According to firms surveyed, this is mainly because of their growing perceptions of the country's restrictive (and unfair) labor laws. As noted above in labor productivity, Indonesian firms overwhelmingly feel that the country's pro-employee laws make it difficult to for them to afford, and thus justify investing in training. Firms surveyed responded that funds otherwise invested in training are sometimes reserved in „severance accounts' for unlikely instances where they must downsize, and thus pay severance to their full time workers. The BGI team only met one firm who has sought an innovative way to reserve funds for downsizing, while continuing to invest in training. This apparel company has purchased an insurance policy whereby employees pay into it (forced deductions out of their salaries on a quarterly basis). This policy serves as a defacto pension fund for the employer and is drawn from to pay severance to employees who are deemed unsuitable, or who underperform. This appears to be an innovative way for firms to budget for unforeseen downsizing but the approach, as observed was not widely known, nor adopted.

A few firms based in Yogykarta responded that they have evidence of employees who work for several years and then underperform (or virtually stop working) in order to get fired only to be paid severance and then take a job with a neighboring home furnishings firm. These firms state that this behavior was seen as a double negative to their operations. They lose out on the initial training investment with a fired worker, in addition to having to pay severance. Reasons like these, along with most firms' perceptions of the inequitable labor laws were sourced as reasons why firms in Indonesia are reticent to invest in training.

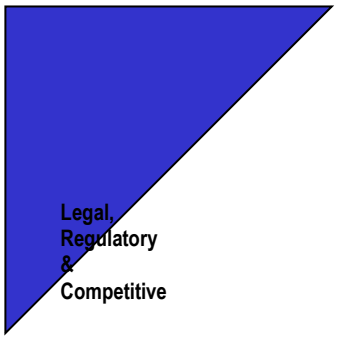
Firms in Indonesia are also reticent to hire from outside of Indonesia to source skilled and unskilled labor, citing cultural differences as the number one reason. As figure depicts, over 98% of respondents source labor from within Indonesia

Figure 11: Source of skilled labor



When questioned on Indonesians reliance on Indonesian labor in light of the country's labor policies, several firms indicated that the quality of the labor they employ is adequate to serve the needs of their existing customer base; and that spending money either on expensive foreign workers is not only cost prohibitive, productivity returns to „normal' levels after training is conducted.

Legal, Regulatory and Competitive Environment



Through MEASURE, the business legal, regulatory, and competitive environment directly defines the immediate context in which a country's enterprises operate. The legal and regulatory environment strongly influences the ease and cost with which business can be done. MEASURE assesses the burden of regulation on enterprises, both in start-up and in daily operations, and searches for the absence of obstacles to enterprise development. The competitive environment looks more closely at the presence of factors that can contribute to an enterprise's success. Demanding customers, intense competition, and the presence of related and supporting firms that can provide quality inputs are key ingredients to an enterprise's ability to upgrade.

Legal and Regulatory Environment

The Legal and Regulatory Environment is examined through the following indicator:

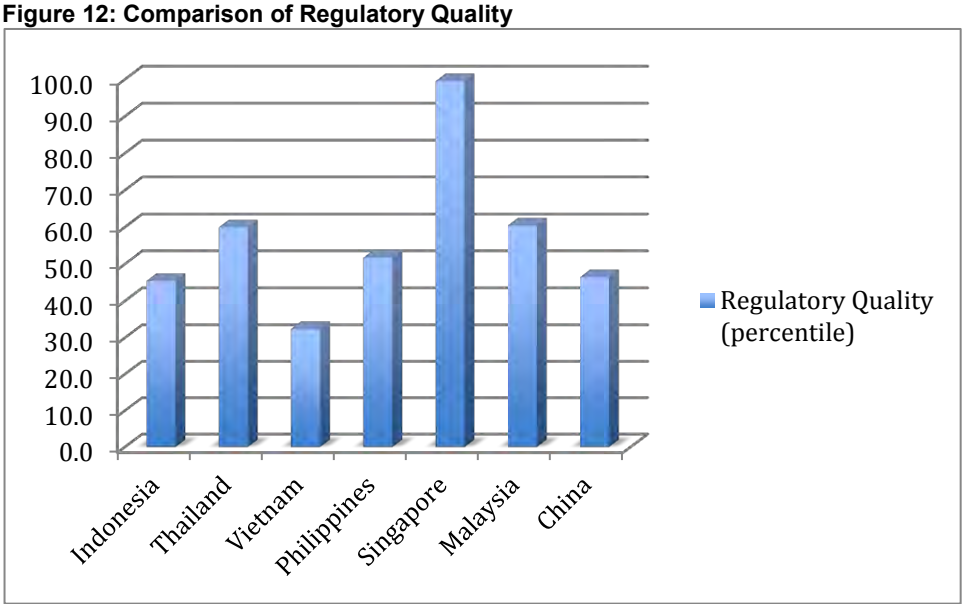
- *Regulatory Quality.*

Indonesia's Regulatory Quality score is reflected as a percentile. This score, 45.4 is lower than the comparator average of 56.5; with only Vietnams score lower that Indonesia.

In addition to addition to the labor regulations discussed earlier, Indonesian firms believe that decentralized governance is also to blame for this low score. During Soharto's rule, policies were centralized in Jakarta and carried out throughout the country. Under the current administration, regencies have more control over the types of businesses they support, have more control for levying taxes and even power over the distribution licenses. Firms surveyed have noticed that as a result, inter-regional transportation costs have increased, and some firms sight delays and other non-tariff barriers when they chose to expand to other regencies outside of existing operations.

Outside of paying local officials, firm's desire more engaged public-private dialogue and possible policy reforms to improve the regulatory environment in which they work.

Figure 12: Comparison of Regulatory Quality



Additionally, while it cannot be confirmed, some firms believe that some of Indonesia's policies conflict one with the other. As an example, in the home furnishings sub-sector, firms complain that the Ministry of Trade wants to increase exports and has allowed the export of raw rattan, which in their minds contradicts the Ministry of Industry's promotion of increased exports of value added products. These firms cite difficulties in sourcing raw rattan for home-furnishings manufacturing because incentives are misaligned with rattan producers who prefer to export.

Finally, some export-oriented firms lament that even while operating in bond-free zones, they still experience delays importing and exporting because of customs delays. This particular anecdote was only cited by firms in the apparel sector, and when probed further, it was determined that while significant improvement has occurred in customs reform, some firms prefer „the old way of doing things', meaning they experienced preferential treatment through facilitation payments, and now have to cue at customs just like everyone else. The BGI team believes that perhaps while some regulatory practices have indeed improved, more sensitization and enforcement is necessary to change business behavior.

Competitive Environment

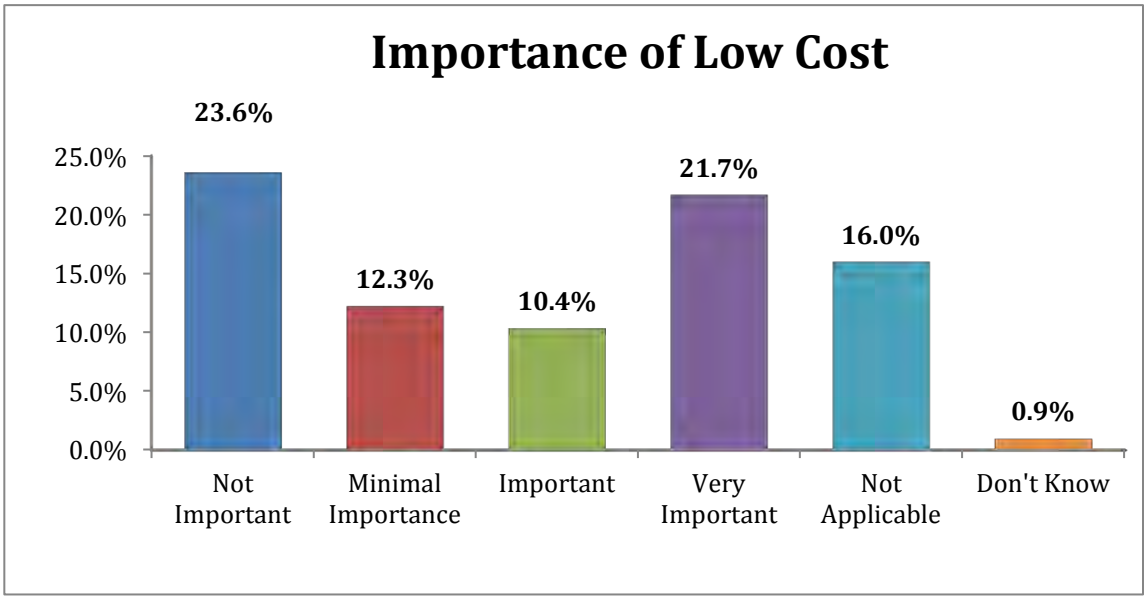
MEASURE assesses the Competitive Environment using proxies for the four points of the Porter Diamond, a widely recognized tool for measuring competitiveness.[6] The four proxies are:

- *The Nature of Competitive Advantage*,
- *Buyer Sophistication*,
- *Cluster Development*, and
- *Intensity of local competition.*

For the most part, Indonesia scores well in these indicators when measured against its comparator countries. Indonesia's Nature of Competitive Advantage score is 4.1 against an average comparator score of 3.8, higher than average. Its Buyer Sophistication score (3.9) is slightly lower than the average score of 4.0. Indonesia scores 4.5 in Cluster Development, on par with the comparator average of 4.5. For Intensity of local competition, Indonesia scores 5.1 against a comparator average of 5.2.

As discussed earlier, Indonesian firms do not feel a competitive disadvantage in competing against other ASEAN countries, nor with China. Blessed with natural resources, unique skills, unique product offerings, and growing domestic demand and buyer sophistication, Indonesian firms believe they are well suited to meet global and domestic markets.

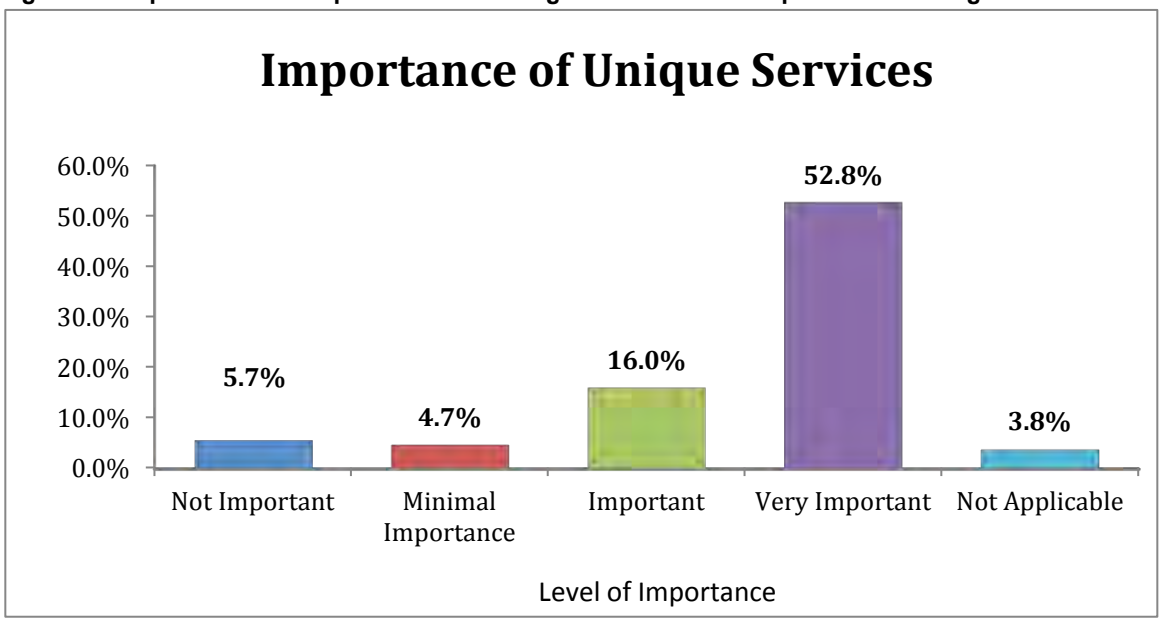
Figure 13: Importance of costs as competitive advantage



Moreover, it appears evident that firms focusing on domestic markets are just as competitive and sophisticated as firms competing globally, all good news for firms in these sectors. Most firms believe cite low cost as the least important competitive advantage, and 52% of respondents cite the importance of unique services as critical to their competitive advantage.

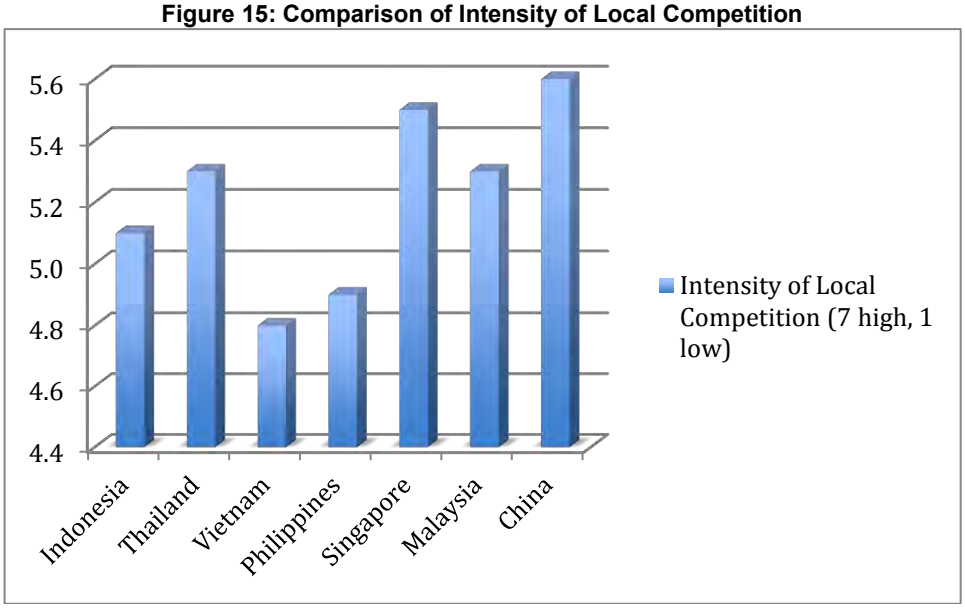
[6] The four points of the Porter Diamond and the proxies chosen to represent them are explained in greater detail in Appendix 2.

Figure 14: Importance of Unique Service Offerings as source of Competitive Advantage



Finally, Indonesian firms, because of its intensity of local competition, and despite its apparent under performance in productivity, are innovating in order to remain competitive. All signs indicating that Indonesian's apparel, automotive and home-furnishing sectors are increasing their global competitiveness.

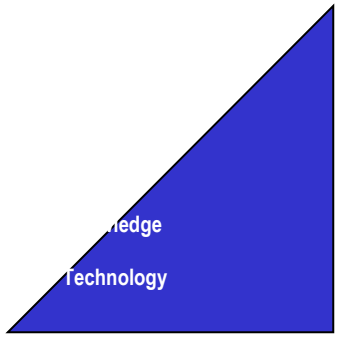
Figure 15: Comparison of Intensity of Local Competition



Knowledge and Technology

Knowledge and technology comprise the factors that contribute to an enterprise's ability to produce products that are differentiated and of substantial value-added. This is of great importance to enterprises because it determines an enterprise's ability to either specialize in its core activities and/or expand into higher value activities that capture a substantial share of the

final value of a product. Under MEASURE, this category is separated into the following elements: Access to Communication Technology, which measures the degree to which companies have access to the modern technology necessary to communicate in real-time with suppliers, customers, and other partners; Knowledge and Technology Creation, which measures the degree to which knowledge and technology is being created by enterprises; and Firm-Level Technology Diffusion, which measures the degree to which new technologies are being adopted widely by enterprises throughout the economy. The indicators for these elements are:



Access to Communication Technology

- *Internet Users*
- *Mobile Telephone Subscribers*

Knowledge and Technology Creation

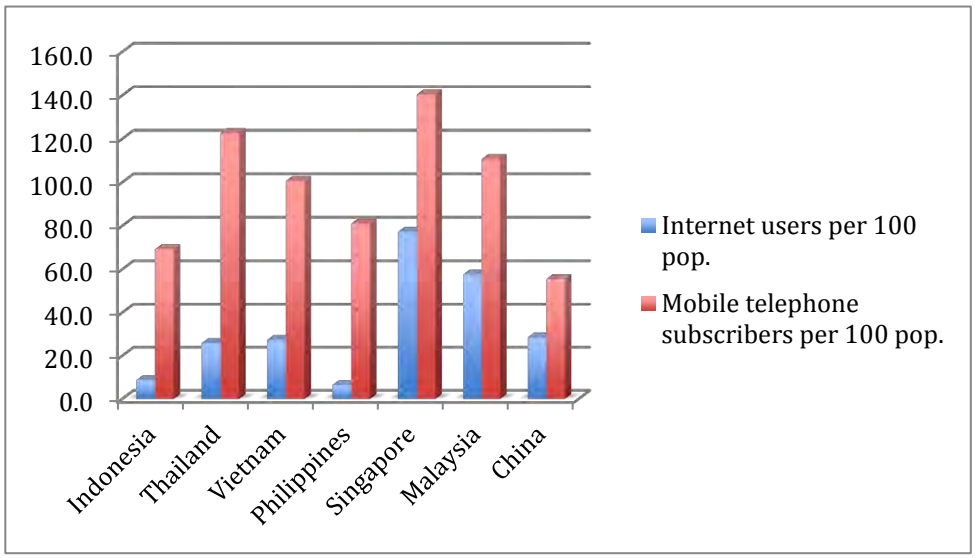
- *Capacity for Innovation*

Firm-Level Technology Diffusion

- *Adoption of technology* (Firm-Level Technology Absorption).

Indonesia ranks low on its access to communication technologies (see below), with only 8.7 of Internet users (per 100 population) in the country. This score is significantly lower than the comparator average of 33. Likewise, Indonesia's rank in mobile telephone penetration is 69.2, as compared to the average comparator score of 97.1. The BGI team believes these low scores are a result of two factors, Indonesia's very large population and the concentration of population density in/around population centers on Java Island, the center of commerce in the country. The BGI team suspects that if these indicators were disaggregated to only show Internet and cell phone penetration in these population centers, the scores would be higher. Additionally, when surveyed 61.3% of respondents indicated that they acquired new technologies by developing it themselves.

Figure 16: Comparison of Intensity of Technology Diffusion



These signs of technology absorption were evidenced in several ways. In the automotive sector, firm are developing and adapting existing equipment to improve production capabilities and reduce costs. In the home-furnishings sector, the BGI team met with a handful of companies that are transforming bamboo into a rattan-substitute to compensate for their inability to source rattan locally. In the apparel sector, firms are traveling to neighboring countries to observe

regional competitors to determine what new equipment is necessary to improve operational efficiency. Most firms use the Internet as a source for market information, pricing, and research and development.

Enterprise Responses

MEASURE's primary goal is to describe **how** business decision-making and performance is changing in the context of Indonesia's enabling environment is influenced by firm-level business environment enablers. Examples of these responses were found throughout this diagnostic. These responses can be summarized in the following tables.

Table 3: General Constraints and Business Responses

Constraint	Response
Poor access to working and investment capital	•Holding off expansion or new product plans, and only planning 12 months out, until financing is secure
	•Seeking investment from ASEAN banks and Taiwan
Diminishing domestic supply of inputs	•Stockpiling inputs when found
	•Sourcing from ASEAN countries when needed
Perceptions of Low productivity	•Tweaking compensation plans to spark productivity increases
	•Reinvesting in machinery and new technologies to improve efficiencies
Slow tax restitution	•Firms investing in improving accounting to obtain higher restitution amounts
Restrictive Labor Regulations	•Outsourcing production, hiring contract labor, innovative strategies to cope with regulations
	•Automating processes to reduce labor costs
Currency Exchange	Speculation on currency fluctuations when costing & price setting

Table 4: Automotive Constraints and Responses

Constraint	Response
Unstable prices of raw material and inconsistent quality for locally produced steel	•Stockpiling inputs when found
	•Sourcing from within ASEAN
Low margins	•1st tier providers improving production efficiencies (Kaizen, Six Sigma, etc)
	•2nd tier providers diversifying production for oil/gas, local gov't (bus/rail) & aftermarket
Shortage of highly skilled workers	•Poaching from other companies
Old machinery	• Developing new techniques and technologies to improve existing machinery and thereby increasing operational efficiency

Table 5: Apparel Constraints and Business Responses

Constraint	Response
Poor access to working and investment capital	•Holding off expansion or new product plans, and only planning 12 months out, until financing is secure
	•Seeking investment from ASEAN (Taiwan or Singapore) banks
Diminishing domestic supply of inputs	•Stockpiling inputs when found
Perceived Low productivity	•Tweaking compensation plans to spark productivity increases
	•Reinvesting in machinery and new technologies to improve efficiencies
Increasing fixed costs (plant/infrastructure/labor)	•"Selling" production facilities to workers and subcontracting to them
Seasonal Demand	•Focusing on foreign and domestic buyers with more consistent production schedules

Table 6: Home Furnishings Constraints and Business Reponses

Constraint	Response
Poor access to working and investment capital	•Holding off expansion or new product plans, and only planning 12 months out, until financing is secure
Diminishing domestic supply of inputs	•Stockpiling inputs when found
	•Purchasing directly from plantations
	•Vertical integration into plantation ownership
	•Using more „reclaimed' and recycled wood by-products
	•Innovation (transforming bamboo to rattan)
Perceived Low productivity	•Outsourcing „low tech' production
Limited market information	•Exploring niche markets (green certified) but sure unclear if niche markets will result in higher margins

This final table should serve as the basis for further discussion, research and policy recommendations under MEASURE Plus in an effort to improve Indonesia's business enabling environment. These recommendations were listed as possible recommendations from Indonesia's business community, and do not reflect the views of BGI.

Table 7: Business Constraints for which there is no evident response, but Business Recommendations

Constraint	Suggestions
Customs delays	•Tier/rank companies that export as priority importers to hasten customs entry
Decentralized governance/High Intra-country transportation costs	•Improve process of expansion for existing companies
Currency Exchange	•Peg currency for export sectors at Rp9500
	•Provide tax break for exporters
Mismatched Gov't Policies/Diminishing domestic supply	•Impose tax on raw material export
	•Align goals of Min of Industry and Min of Trade
Labor Regulations	•Revise labor law to encourage full-time employment (e.g. tax incentives)
	•Pension plan
Poor access to business support services and technology innovations	•Invest in and align University R&D with needs of private sector to spark innovation
	•Tax breaks for OEMs to encourage domestic sourcing

Appendix 1: Indonesia's Indicators

MEASURE Worksheet

	Country Indicators	Indonesia (Target)	Thailand (Regional)	Vietnam (Regional)	Philippines (Regional)	Singapore (Regional)	Malaysia (Best Practice)	China (Regional)	Source
Enterprise Performance									
1	Growth of Exports (2008 / 2000-2008)	9%/8%	7%/6%	21%/19%	-2%/5%	n/a	4%/5%	8%/21%	WTO
2	Labor productivity per person employed	$10,671.07	$15,547.95	$5,675.84	$8,259.94	$45,786.45	$25,590.27	$10,377.86	ILO, KILM 18
Enterprise Structure									
3	Total # of registered businesses per 1,000 inhabitants, 2006	1.22	4.32	0.76	N/A	30.27	N/A	N/A	WDI (total number population
4	Diversification of Export Industries (% concentration in top 3), 2008	48.9%	41.4%	35.3%	66.3%	67.4%	50.1%	47.0%	UN Comtrade
5	Informality (1 low, 7 high)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	GCR 6.17 (05-06)
Enterprise Sophistication									
6	Production	2.88%	39.00%	16.72%	15.66%	n/a	54.05%	35.92%	WB/ES

	Certifications as a % of total firms (2009)								
	Proactive Strategy								
7	Control of distribution (7 high, 1 low)	4.4	4.3	4.0	4.3	4.1	4.8	4.3	GCR 11.06
8	Production process sophistication (7 high, 1 low)	4.0	3.8	3.6	3.3	5.6	4.6	3.9	GCR 11.07
9	Extent of Marketing (7 high, 1 low)	4.4	4.5	4.4	4.5	5.3	4.9	4.5	GCR 11.08
10	Degree of Customer Orientation (7 high, 1 low)	4.8	5.3	4.4	5.0	5.4	5.3	4.5	GCR 6.14
11	VC Breadth (7 high, 1 low)	4.4	4.1	3.4	3.7	5.3	4.8	4.0	GCR 11.05
Access to finance									
12	Access to loans (7 high, 1 low)	4.0	3.4	2.7	2.9	4.5	4.2	3.0	GCR 8.04
13	Access to Equity (7 high, 1 low)	4.6	4.3	4.1	3.8	4.8	4.7	3.8	GCR 8.03
14	Access to Venture Capital (7 high, 1 low)	3.9	2.9	2.7	2.5	4.2	3.9	3.3	GCR 8.05
Workforce & skills development									
	Training of Workforce								

15	Extent of Staff training (7 high, 1 low)	4.4	4.1	4.1	4.3	5.5	5.0	4.1	GCR 5.08
16	% of firms offering formal training (where available)	4.73%	75.34%	43.55%	31.11%	n/a	50.14%	84.78%	WB/ES
17	Local availability of Research & training services (7 high, 1 low)	4.4	4.1	3.4	4.0	5.3	5.0	4.4	GCR 5.07
18	Brain drain (7 less, 1 more)	4.6	4.2	3.5	3.1	5.8	4.6	4.3	GCR 7.08
Legal & regulatory environment									
19	Regulatory Quality (percentile)	45.4	59.9	32.4	51.7	99.5	60.4	46.4	WB/Gov
Competitive Environment									
20	The Nature of Competitive Advantage (7 high, 1 low)	4.1	3.3	2.8	3.3	5.6	4.1	3.7	GCR 11.04
21	Buyer Sophistication (7 high, 1 low)	3.9	3.8	3.8	3.5	4.6	4.1	4.6	GCR 6.15
22	Cluster Development (7 high, 1 low)	4.5	4.1	4.9	3.7	5.2	4.8	4.7	GCR 11.03
23	Intensity of Local Competition (7 high, 1 low)	5.1	5.3	4.8	4.9	5.5	5.3	5.6	GCR 6.01

Knowledge and Technology									
24	Internet users per 100 pop.	8.7	25.8	27.3	6.5	77.2	57.6	28.5	GCR 9.04
25	Mobile telephone subscribers per 100 pop.	69.2	122.6	100.6	81.0	140.4	110.6	55.5	GCR 2.09
26	Capacity for Innovation (7 high, 1 low)	3.7	3.1	3.6	2.8	4.3	4.1	4.2	GCR 12.01
27	Adoption of Technology (7 high, 1 low)	4.9	4.9	5.0	5.0	6.0	5.5	4.2	GCR 9.02

Cells highlighted in yellow represent previous year's values. Information for current year values was not available at writing.

Appendix 2: Explanation of MEASURE Indicators

Enterprise performance

1. *Size & growth of exports* (WTO, Trade Statistics Database) measures the rate of growth of exports. It includes both 1-year and 7-year growth. Consideration should be given as well to size of the export base; it is frequently more difficult to grow rapidly from a higher base.
2. *Labor productivity* (ILO, KILM 18) for the aggregate economy, the GDP per person employed. A higher number reflects higher productivity.

Enterprise structure

3. *Firm size* (WDI 5.1, # of SMEs per 1,000 people).
4. *Diversification of export industries* (Composition of total exports made up by Top 3, UN Commission on Trade) measures the degree to which exports are concentrated in a single product (or, conversely, how well they are distributed among many products). This is a percentage; the higher the percentage, the lower the degree of diversification.
5. *Informality* (GCR 2005-06) measures the degree to which the economy is made up of informal (unregistered) firms versus those in the formal sector. Generally, greater degrees of informality result in lower levels of business growth, as lack of formal recognition tends to discourage business owners from investing in their businesses.[7]

Enterprise sophistication

6. *Production certifications* (Enterprise Survey, WB).
7. Number of firms with ISO certifications.
8. *Proactive Strategy* (GCR indicators including Control of Distribution, 11.06; Production Process Sophistication, 11.07; Extent of Marketing, 11.08; and Degree of Customer Orientation, 6.14).[8]
    a. Control of Distribution measures the degree to which international distribution is controlled by domestic firms versus international firms. This is ranked on a scale of 1-7, where a score of 7 indicates control by national firms and a score of 1 indicates complete control by international firms.
    b. Production Process Sophistication measures the degree to which the production process makes use of process technology versus the degree to which it depends on labor. This is ranked on a scale of 1-7, where a score of 7 suggests a high degree of process technology while a score of 1 suggests a high degree of labor intensity.
    c. Extent of Marketing measures the degree to which marketing is sophisticated or primitive. Scored from 1-7, where a score of 7 is highly sophisticated and a score of 1 very primitive.
    d. Degree of Customer Orientation measures the degree to which firms are highly responsive to their customers. Scored from 1-7, where a score of 7 is highly responsive and a score of 1 non-responsive.
9. *Extent of value-add activities* (Value Chain Breadth, GCR 11.05) measures the degree to which a country's exporting companies are primarily involved in resource extraction or production versus the degree to which they perform higher level functions such as product design, marketing, sales, logistics, and after-sale services. This is a scale of 1-7, where 7 represents high value add activities and 1 low value-add activities.

[7] The GCR has not published this data for the last two years.
[8] It is important to keep in mind throughout the diagnostic that the GCR primarily measures *perceptions* of local business leaders of their operating environment rather than relying on an objective measure.

Access to Finance

10. *Access to Loans* (GCR 8.03) measures how easy it is to obtain a bank loan with only a good business plan and no collateral. Scored from 1-7, where 7 is very easy and 1 impossible.
11. *Access to Equity* (GCR 8.02) reflects the ease of raising money by issuing shares on the local stock market. Scored 1-7, where 7 is very easy and 1 impossible.
12. *Access to Venture Capital* (GCR 8.04) measures the ease with which entrepreneurs with innovative but risky projects can generally find venture capital. Again on a scale of 1-7, where 7 is very easy and 1 impossible.

Workforce and Skills Development

13. *Training of workforce* (Extent of Staff Training, GCR 5.08, and percentage of firms offering formal training, Enterprise Survey, WB) measures the approach of companies to human resources as evaluated by the degree to which they invest in training and employee development.
    a. Extent of Staff Training is scored from 1-7 in the GCR, where 7 indicates substantial investment in staff training and 1 suggests no staff training.
    b. Percentage of firms offering formal training is presented as a percentage of total firms interviewed.
14. *Local Availability of Research and Training Services* (GCR 5.07), which measures the degree to which specialized research and training services are available. Scored from 1-7, where 7 represents extensively available and 1 is non-existent.
15. *Brain Drain* (GCR 7.09), which measures the extent to which the most talented people leave to pursue opportunities in other countries rather than staying in their own. Again scored from 1-7, where 7 represents a low degree of brain drain and 1 represents a very high degree.

Legal and Regulatory Environment

16. *Regulatory Quality* (WB Worldwide Governance Indicators), which measures the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. This is measured on a scale of -2.5 to 2.5 (with 2.5 being outstanding governance and -2.5 being as poor as possible). However, for simplification's sake, this is presented as a more easily understandable percentile rank.

Competitive Environment

17. *The Nature of Competitive Advantage* (GCR 11.04), a proxy for Factor Conditions, which measures whether a country's competitive advantage in international markets is due primarily to low-cost or local natural resources or whether it is based primarily on unique products or processes. Scored from 1-7, where 7 represents competitive advantage based purely on unique products or processes, and 1 represents competitive advantage based primarily on low costs.
18. *Buyer Sophistication* (GCR 6.15), a proxy for Demand Conditions, which measures the degree to which buyers in a given country make their purchasing decision based solely on the lowest price versus basing their decision on a sophisticated analysis of

performance attributes. Scored from 1-7, where 7 represents more sophisticated customers and 1 represents less sophisticated customers.[9]

19. *Cluster Development* (GCR 11.03), a proxy for the existence and strength of Related and Supporting Industries, which measures the degree to which strong and deep clusters are widespread throughout the economy. Scored from 1-7, where 7 suggests strong cluster presence (and therefore strong related and supporting industries) and 1 represents limited cluster formation, and therefore weak related and supporting industries.
20. *Intensity of local competition* (GCR 6.01), a proxy for Industry Strategy, Structure, and Rivalry, which measures the extent to which competition in local markets is limited in most industries, with only rare cases of price-cutting, versus the extent to which competition is intense in most industries as market leadership changes over time. Scored from 1-7, where 7 indicated highly intense competition and 1 indicates an absence of competition.

Knowledge and Technology

21. *Internet Users* (GCR 9.06), which measures the number of Internet users per 100 people. This measure uses hard data and produces a rank only (relative to other countries).
22. *Mobile Telephone Subscribers* (GCR 9.05), which measures the number of mobile telephone subscribers per 100 people. This is also hard data and produces a ranking.
23. *Capacity for Innovation* (GCR 12.01), which measures the extent to which companies obtain technology exclusively from licensing or imitating foreign companies or whether they obtain them by conducting formal research and pioneering their own new products and processes. Scored from 1-7, where 7 indicates that most innovation is internal, whereas 1 indicates that technology originates strictly from outside the firm.
24. *Adoption of technology* (Firm-Level Technology Absorption, GCR 9.02). This measures the degree to which companies in a country are able to absorb new technology. Scale of 1-7, where 7 suggests that companies are very able to adopt new technology, while 1 indicates that they are virtually incapable of doing so.

[9] Porter postulates that both size and sophistication of demand are relevant. However, he places far more emphasis on sophistication than on size, pointing to myriad examples of sophisticated local markets that promoted upgrading and therefore facilitated access to wider regional and international markets. As such, this diagnostic has placed emphasis on the sophistication of demand over its size.

Appendix 3: The MEASURE Enterprise Survey

The purpose of this survey is to ascertain aspects of your business related to operational and labor productivity, value addition, market understanding and penetration, and strategy. The answers to these questions will remain confidential, but will assist us in preparing a report, which describes the nature and sophistication of the business sector in your country. It will also enable us to prepare a set of recommendations for future economic growth activities.

Please circle the answer that most directly applies to your company

1. **My company operates in the following sector:**
   a. Automotive assembly/manufacturing, or its components
   b. Electronics
   c. Garments/Apparel
   d. Home Furnishings

2. **Title of interviewee:**
   a. Owner/Proprietor
   b. Executive
   c. Senior Manager
   d. Mid Manager

3. **Number of employees:**
   a. 1-5
   b. 6-20
   c. 21-50
   d. 51-100
   e. 101-250
   f. 250-1000
   g. 1000+

Please check the response that best describes your answer.

4. **My firm has been operating for**
   Less than a year _____
   1-3 years _____
   4-6 years _____
   7-10 years _____
   10-20 years _____
   21+ years _____

5. **My company sources (membeli) most of its goods from suppliers that are located:**
   Locally (within our state) _____
   Regionally (from an ASEAN state) _____
   Internationally (in a state beyond our ASEAN region) _____

6. **The *quantity* of inputs (masukan) provided by my company's local supplier (including most important materials, components, equipment and services) is:**
   Very Poor _____ Poor _____ Not Applicable_____
   Average _____ Good _____
   Very Good _____ Don't Know _____

7. **The *quality* of inputs provided by my local supplier are:**
   Very Poor _____
   Poor (lacking technological capability) _____
   Average (marginal technological capability) _____
   Good (technologically capable) _____
   Very Good (internationally competitive
   & able to assist in new product & process development) _____
   Don't Know _____
   Not Applicable _____

8. **By placing a √, Please indicate the importance of the nature of your company's competitive advantage:**

	Not important	Minimal Importance	Important	Very Important	Not Applicable	Don't know
Low Cost						
Special Natural Resources						
Adequate local Natural Resources						
Cost Competitive or the value we provide						
Unique Products and Process (Value Added or Quality)						
Unique Service						

Please check the response that best describes your response

9. **In your industry, international distribution is:**
   Predominately (kebanyankan) managed by foreign companies _____
   Managed by foreign companies with
   little domestic ownership and control _____
   Mostly owned and managed by domestic companies _____
   Entirely owned and managed by domestic companies _____
   Don't Know _____
   Not Applicable _____

10. **My company's production process is:**
   Labor intensive and based on historical methods (manual labor) _____
   Labor intensive and reliant (tergantung dgn) on basic technology _____
   Based on appropriate technology[10] _____
   Based on world's best and most efficient process technology _____
   Not Applicable _____

11. **My company's strategic plan is best described as:**
   Very Poor (do not have a strategic plan) _____
   Poor (limited/basic) _____
   Average (adequate) _____
   Good (on par with international best practice) _____
   Very Good (exceeding international best practice
   and employing world's most sophisticated methodologies) _____
   I do not know my company's strategic plan _____

12. **My company's marketing plan is best described as:**
   Very Poor (do not have a marketing plan) _____
   Poor (limited/basic) _____
   Average (adequate) _____
   Good (on par with international best practice) _____
   Very Good (extensive, employing world's most
   sophisticated tools and techniques) _____
   I do not know my company's marketing plan _____

13. **My company's primary source for market information is:**
   The Principal buyer(s) of my product/service _____
   The final (end) consumer _____
   Trade fairs _____
   Industry reports _____
   Other (please specify) _____

[10]Appropriate technology is defined as technology that is designed to accommodate social, environmental and economic aspects of the community intended to adopt it. Generally, it is a technology requiring less technical sophistication and fewer resources while achieving similar intended results.

14. **Important strategic and operational decisions in my company are made:**
    By top management with little input from lower level management _____
    By top management with input from lower level management _____
    By business unit heads with final approval from upper management _____
    By business unit heads and other lower level management _____

15. **The process machinery my company uses can be sourced from the following areas:**
    Almost all of our specialized processing equipment is imported _____
    Some of our specialized processing equipment is imported _____
    Much of our specialized processing equipment is sourced locally _____
    Almost all of our specialized processing equipment is locally available _____
    Don't Know _____
    Not Applicable _____

The following question is intended to determine the nature of monetary compensation to employees in this enterprise, please check the most appropriate response.

16. **Excluding health and other non-monetary compensation, my company pays its employees based on the following criteria:**
    An Annual Salary Only _____
    An Annual Salary and only upper management is eligible for bonus _____
    An Annual Salary and upper and middle management are eligible for bonus _____
    An Annual Salary with some employees eligible for personal performance-based bonuses _____
    An Annual Salary with all employees eligible for personal performance-based bonuses _____

As a percentage of total utilization (pengunaan), please check the response that best describes your answer

17. **What was your company's average capacity utilization over the last year? Capacity utilization is the amount of output actually produced relative to the maximum amount that could be produced with your existing machinery and equipment and regular shifts.**
    0%-5% _____ 6%-10%_____ 11%-20%_____
    21%-30%_____ 31%-40%_____ 41%-50%_____
    51%-60%_____ 61%-70%_____ 71%-80%_____
    81%-90%_____ 91%-100%_____ Don't Know_____
    Not applicable _____

18. **What was your firm's average use of temporary labor (or contract labor) over the last year? Temporary labor is defined as any labor input from individuals not considered full-time employees at the time the labor was provided.**
    0%-5% _____ 6%-10%_____ 11%-20%_____
    21%-30%_____ 31%-40%_____ 41%-50%_____
    51%-60%_____ 61%-70%_____ 71%-80%_____
    81%-90%_____ 91%-100%_____ Don't Know_____
    Not applicable _____

19. **What percentage of total labor hours worked was spent in training/staff development/skills acquisition?**
    0%-5% _____ 6%-10%_____ 11%-20%_____
    21%-30%_____ 31%-40%_____ 41%-50%_____
    51%-60%_____ 61%-70%_____ 71%-80%_____
    81%-90%_____ 91%-100%_____ Don't Know_____
    Not applicable _____

Please check the response that best describes your answer

20. From where do you source skilled labor?

Within my country _____
Neighboring countries (within ASEAN) _____
Outside the region and/or Internationally, (beyond ASEAN) _____

21. What were your sales revenues last year

0- IDR 1,8 billion ($200,000) _____
IDR 1,8 billion - IDR 4,5 billion ($201,000-$500,000) _____
IDR 4,5 billion - IDR 9 billion ($501,000-$1,000,000) _____
IDR 9 billion – IDR 27 billion ($1,000,000-$3,000,000) _____
IDR 27 billion – IDR 45 billion ($3,000,000-$5,000,000) _____
IDR 45 billion – IDR 72 billion ($5,000,000-$8,000,000) _____
IDR 72 billion – IDR 108 billion ($8,000,000-$12 mil) _____
IDR 108 billion – IDR 135 billion ($12 mil -$15 million) _____
Over IDR 135 billion ($15 million) _____

22. What percentage of your company's revenue was generated from:

a. Sales within the country?

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____
51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____ Don't Know_____
Not applicable _____

b. Sales exported directly?

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____
51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____ Don't Know_____
Not applicable _____

c. Sales exported indirectly through a distributor or middleman?

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____
51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____ Don't Know_____
Not applicable _____

23. Have your sales increased, decreased, or remained the same (in the aggregate) over the last three years?

Increased _____
Decreased _____
Same _____

If your sales increased, please answer question no. 25
If your sales decreased, please skip to question no. 28
If your sales remained the same, please skip to question no. 29

24. By what percentage have your sales increased?

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____
51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____

25. If your company experienced an increase in sales, did you generate a profit?

Yes _____
No _____

26. If our company generated a profit, by what percentage?

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____

51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____ N/A (no profit) _____

27. By what percentage have your sales decreased?

0%-5% _____ 6%-10%_____ 11%-20%_____ 21%-30%_____ 31%-40%_____
41%-50%_____ 51%-60%_____ 61%-70%_____ 71%-80%_____ 81%-90%_____
91%-100%_____

28. What percentage of the overall market does your company represent?

a. In the national market?

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____
51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____ Don't Know_____
Not applicable _____

b. In the international market?

Less than 1% _____ 1%-3% _____ 3%-5% _____
6%-10% _ _____ 11%-20%_____ 21%-30%_____
31%-40% _____ 41%-50%_____ 51%-60%_____
61%-70% _____ 71%-80%_____ 81%-90%_____
91%-100% _____ Don't Know_____ Not applicable_____

29. Approximately what percentage of your total production was outsourced, or sub-contracted to another organization last year?

Less than 1% _____ 1%-3% _____ 3%-5% _____
6%-10% _ _____ 11%-20%_____ 21%-30%_____
31%-40% _____ 41%-50%_____ 51%-60%_____
61%-70% _____ 71%-80%_____ 81%-90%_____
91%-100% _____ Don't Know_____ Not applicable _____

30. What was your firm's average use of business development services/advisory or consulting services over the last year? (as a percentage of operational budget)

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____
51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____ Don't Know_____
Not applicable _____

31. What share of your company's operating expense is attributed to outsourcing and sub-contracts?

0%-5% _____ 6%-10%_____ 11%-20%_____
21%-30%_____ 31%-40%_____ 41%-50%_____
51%-60%_____ 61%-70%_____ 71%-80%_____
81%-90%_____ 91%-100%_____ Don't Know_____
Not applicable _____

32. Approximately what share of net profits or operating budget was re-invested back into your company last year (not distributed to shareholders or owners)?

Less than 5% _____
5%-10% _____
11%-25% _____
Over 25% _____

33. If you re-invested into your company, in what investments were they in? (Check all that apply)

Equipment _____ Advertising and promotion _____
Training _____ Purchase of Services _____
Market information _____ Certification _____
R & D _____ New Facilities _____
Other (Specify) _____

34. If your company sells to the international market, to which markets does it sell to? (Check all that apply)

Asia Far East	_____	Central Asia	_____
Middle East	_____	Western Europe	_____
Eastern Europe	_____	North Africa	_____
Sub-Saharan Africa	_____	South America	_____
North America (US, Canada, Mexico)	_____	South Pacific	_____
Not Applicable	_____		

Please check the response that best describes your answer

35. Right now, how many months ahead has the management of your enterprise planned its activities regarding:

a. Product mix and target markets,
   - 0-3 months _____
   - 4-6 months _____
   - 7-12 months _____
   - Over 12 months _____

b. Human resources (employment and training)
   - 0-3 months _____
   - 4-6 months _____
   - 7-12 months _____
   - Over 12 months _____

c. Investments
   - 0-3 months _____
   - 4-6 months _____
   - 7-12 months _____
   - Over 12 months _____

36. Thinking of your main product line or main line of services, and comparing your production process with that of your closest *local* competitor, which of the following best summarizes your position:

a. My company's technology is LESS ADVANCED than that of my main competitor, _____
b. My company's technology is ABOUT THE SAME as that of my main competitor, _____
c. My company's technology is MORE ADVANCED than that of my main competitor_____
d. No competitor/ not applicable _____
e. Don't know _____

37. Thinking of your main product line or main line of services, and comparing your production process with that of your closest *international* competitor, which of the following best summarizes your position:

a. My company's technology is LESS ADVANCED than that of my main competitor, _____
b. My company's technology is ABOUT THE SAME as that of my main competitor, _____
c. My company's technology is MORE ADVANCED than that of my main competitor_____
d. No competitor/ not applicable _____
e. Don't know _____

38. Has your company received any regional or international certifications and if so what was it? (for instance ISO 9000, 9001, 14000, 14001, 16949, Fair Trade, or other)

Yes _____
If yes, please list_____
No _____

Please check the response that best describes your answer

39. Over the last three years, what was the leading way in which your company acquired technological innovations?

a. Produced it ourselves _____
b. Produced by the government _____
c. Licensed from foreign companies _____
d. We have not acquired technological innovations _____

40. Has your company undertaken in the last 3 years, or plan to undertake within the next 12 months any of the following initiatives? (Check only those that apply)

Past	Future	
		Developed a new product line?
		Upgraded an existing product line?
		Introduced new technology that has substantially changed the way the main product is produced?
		Discontinued at least one product (not production) line?
		Opened a new production facility?
		Closed at least one existing production facility?
		Agree to a new joint venture with a foreign partner?
		Obtained a new licensing agreement?
		Outsourced a major production activity that was previously conducted in-house?
		Brought in-house a major production activity that was previously outsourced?

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