

Vietnam: Enhancing Enterprise Competitiveness and SME Linkages

Lessons from international and national experience

**Trade and Competitiveness Global Practice
The World Bank Group**

Table of Contents

Acknowledgements	4
Executive Summary	6
Chapter 1: Introduction	12
<i>Objective and Background</i>	12
<i>Relevance to GoV's Policy Priorities and Programs</i>	14
<i>Country Context</i>	15
<i>Conceptual Approach and Scope</i>	18
Chapter 2: Enterprise Productivity and Investment Climate Analysis	21
<i>Productivity Analysis</i>	21
<i>Innovation</i>	28
<i>Constraints to backward linkages</i>	32
<i>Concluding Summary</i>	39
Chapter 3: Developing Linkages through Supplier Development Programs	40
<i>Introduction</i>	40
<i>Conceptual Linkage process</i>	41
<i>Electronics and Automotive Sectors in Vietnam</i>	43
<i>Supply-side Constraints</i>	45
<i>Demand-side Constraints</i>	47
<i>Institutional and Governance Constraints</i>	52
<i>International Experience in Linkages Programs</i>	54
<i>Concluding Summary</i>	63
Chapter 4: Review of Policies and Institutions for Supporting Enterprise Competitiveness and Linkages	64
<i>Alignment of SME support programs</i>	65
<i>Design elements of the programs</i>	71
<i>Implementing SME support programs: Stakeholder Involvement, Achieved Results, and Challenges</i>	78
<i>Concluding Summary</i>	84
Chapter 5: Roadmap for Implementing the Supporting Industries Program and Strengthening SME Competitiveness	86
<i>Recommendations</i>	87
Part I: Operationalizing the SI linkage policy framework in Vietnam	87
Part II: Objective: Strengthening Enabling environment for private sector competitiveness	91
References	94
Annex 1.1. Summary of recent studies about the competitiveness of the Vietnamese private sector	97
Annex 2.1. Logistic regression of product innovation	101
Annex 2.2. Econometric analysis of linkages: linkage determinants	102

Annex 3.1. International experience in developing linkage programs – summary highlights from Czech Republic, Malaysia, Chile and Costa Rica **104**

Annex 4.1. Vietnam: Mapping institutional landscape for Supporting Industries (SI) lead agency & SME support agencies **106**

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Private Sector Competitiveness and Linkages in Vietnam

Moving support towards operationalization

- **How does this report contribute?** The aim of this report is to move the private sector development (PSD) and foreign direct investment (FDI) linkage agenda from analytics towards operationalization. It draws on a rich knowledge base on Vietnam's private sector. In particular, recent reports such as "*Vietnam 2035*" (World Bank and MPI 2016), and "*Vietnam at a crossroads: engaging in the next generation of global value chains*" (World Bank 2016) analyzed in-depth the challenges and opportunities related to firm productivity, global value chains (GVCs) and innovation. This report builds on this previous work with a focus on concrete obstacles to linkages and the design of programs that could reduce them. Additionally, three new pieces of analytics were undertaken as inputs to the present report, including: (i) Enterprise Survey (2015) data analysis on investment climate issues in Vietnam; (ii) a review of SME programs under implementation in the country; and (iii) sectoral case studies on linkages in the auto and electronics firms in Vietnam.
- **Relevance to Government Policy Priorities and Programs:** This work is fully aligned with the Government's strategic priorities regarding private sector development, as outlined in Vietnam's *Socio-Economic Development Strategy 2011-2020* and *Vietnam Vision 2035* Report. It is also consistent with the WBG's 2016 *Systematic Country Diagnostic (SCD)* for Vietnam, which underlined the need for strengthening competitiveness, particularly for the domestic private sector. It also represents one of the strategic focus areas of the WBG's engagement in Vietnam, as laid out in the *Country Partnership Framework* for the FY18-22 period.
- **Programmatic and integrated approach for supporting PSD and linkages:** This study complements and dovetails the on-going activities in the area of trade and competitiveness in Vietnam. An on-going IFC private sector project aims to improve the regulatory and business environment and enhance the ability of domestic suppliers to participate in value chains in targeted sectors. The objective of this WB report is to examine key business environment constraints that hinder competitiveness of the domestic private sector and to facilitate FDI spillovers and linkages, with a focus on the manufacturing sector. Follow-up work will be undertaken as part of the Phase II of the Australia-World Bank Strategic Partnership in Vietnam (ABP2) that focuses on strengthening capacity of GoV to facilitate private sector development, in particular domestic private firms to take advantage of the opportunities provided by international trade and integration in moving up the value chains.
- **Leverage IFC and WBG partnership:** The joint WB and IFC work is designed to support and leverage potential IFC investments. IFC and WB teams in Vietnam are designing a value chain financing program to build commercial banks' capacity to provide financing to SMEs building on the relationship and transaction flows with other stakeholders in the value chains in a structured manner. IFC has already successfully introduced a financial instrument through its *Global Trade Supplier Finance Program – GTSF* that supports suppliers in GVCs such as in textiles and garment by providing early payments to help eliminate buyer risks, enhance their financial strength as well as efficiently manage working capital flows.

Executive Summary

1. Boosting productivity growth, especially that of the domestic private sector, is a key priority of Vietnam. The country has been successful in attracting foreign direct investment (FDI) and entering global value chains (GVCs). Most local firms, however, are small and only serve the domestic markets. FDI has brought enormous gains to Vietnam in terms of growth, exports and jobs, but has been less stellar in developing linkages with the domestic economy. This is reflected in low domestic value addition and a weak supplier base in Vietnam. With increasing global competition, and its ambition to move up the value chain, Vietnam has a unique window of opportunity to exploit its current position in GVCs.
2. Recognizing this challenge and opportunity, the Government has put in place a Supporting Industries (SI) policy framework that aims to upgrade the capabilities and technology of local enterprises to facilitate supplier linkages with FDI, as well as enable them to enter foreign markets. The Government is in the process of implementing the SI program, as well as revisiting its SME policy for strengthening the domestic private sector. The roll out and implementation details of these new programs and policies still need to be worked out, and the objective of this report is thus to contribute to these on-going efforts to enhance the competitiveness of the domestic private sector and to facilitate FDI spillovers and linkages.
3. Several key dimensions determine the potential for linkages and spillovers from FDI. This report draws on the conceptual framework presented by Farole and Winkler (2014), which analyzes this potential by considering three mediating factors: (i) the spillover potential of foreign companies, (ii) the absorptive capacities of domestic firms, and (iii) host country factors and institutional framework. While this framework considers several transmission channels for spillovers, including labor turnover and market restructuring, this study focuses on supply chains as the main channel and underlines the market failures and constraints that may deter the linkage process in Vietnam.
4. A rich knowledge base about the Vietnamese private sector was established in recent years. Several of these important firm-level studies have presented a consistent view of enterprise level competitiveness challenges and the nature of FDI linkages in Vietnam. Building on these earlier diagnostics, this report provides new analysis focused on obstacles to linkages and focuses on the operationalization of the FDI linkage development agenda in Vietnam. It does so by reviewing both international and domestic experiences, and offering recommendations to strengthen policies and programs to support enterprise competitiveness and linkages in Vietnam.

Key Findings and Recommendations

5. The latest data confirms earlier findings regarding weaknesses of the Vietnamese private sector. To complement the existing knowledge base by focusing on key issues related to linkages, the analysis of recent Enterprise Survey data in chapter 2 examines enterprise level productivity and innovation in Vietnam, as well as firm characteristics and investment climate constraints are the most binding for linkages with foreign-owned companies. The analysis finds that while domestic firms' productivity may not be excessively low compared to other Asian countries, there are some indications that larger companies, which are generally seen as having more potential to become suppliers for foreign-owned firms, are lagging. Also, while Vietnamese firms do innovate, innovation appears to rarely relate to new products or technologies, suggesting scope to incentivize firms to dedicate more resources to innovation activities.
6. Further, findings confirm that the creation of backward linkages between MNEs/lead firms and the local SME sector in Vietnam is influenced by the absorptive capabilities of local firms, the key binding constraints in the enabling environment, and the spillover potential of FDI. The analysis suggests that targeted support for larger domestic firms' innovation activities can be more relevant for backward linkages, as well as supporting joint ventures to boost innovation. Also, programs aiming at fostering backward linkages could target market-seeking FDI and promote joint ventures, and should encourage SMEs to focus on product quality, access to foreign inputs, the provision of training to workers, innovation efforts and use of ICT by domestic firms.
7. A mix of supply and demand side constraints continue to undermine the establishment of linkages between foreign-owned firms and domestic companies. Chapter 3 identifies the key demand-side and supply-side constraints that deter linkages from occurring in Vietnam, with a focus on the electronics and automotive sectors. The chapter suggests that dearth of skills, information gaps on FDI sourcing strategies, and on quality, cost and delivery (QCD) standard requirements are binding constraints for becoming suppliers. Across the manufacturing sector, Vietnamese firms are also disadvantaged due to weak management skills; Vietnamese management scores ranked quite low when compared to other surveyed countries, such as Mexico and Chile. Lack of management skills also topped the list when surveyed firms were asked about what skills are difficult to find (compared to other skillsets like IT, non-IT, writing, and interpersonal skills). Lastly, access to finance appears to be a binding sectoral concern for nascent firms in the electronics/ICT software sector. Financial access is particularly restrictive for firms aiming to make a breakthrough to become suppliers.
8. The lack of workforce skills is hindering SMEs to link and secure business with FDIs. This constraint cuts across sectors, although there may be specific skill-sets demanded by individual sectors. For instance, in the electronics/ICT sector, complaints relate to the lack of workers with skills related to foreign language, management and technical skills. Information asymmetry is a critical constraint faced by domestic suppliers. Without formal information channels to obtain information on FDI sourcing strategies, potential domestic suppliers with

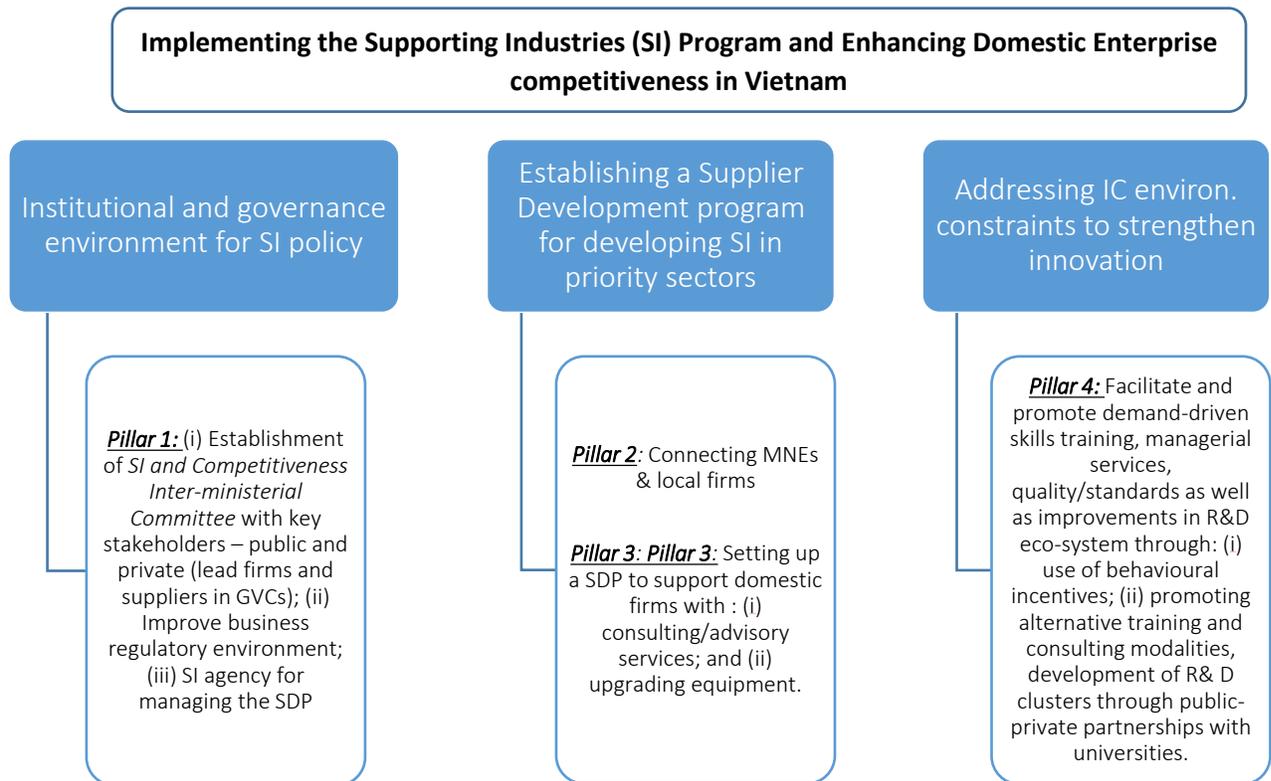
no business connections are disadvantaged in terms of linkage opportunities. Moreover, domestic firms may have limited direct interaction with global buyers, especially if lead firms (e.g., OEMs) coordinate from headquarter locations outside Vietnam. The lack of information on QCD and management standards on the part of suppliers weakens linkages opportunities given that upper-tier suppliers and in turn their suppliers are required to follow lead firms' quality management processes.

9. On the demand side, evidence suggests that lack of competitive local suppliers who can meet quality standards in GVCs is the first-order binding constraint that MNEs currently face. There are also information asymmetry and coordination failures in connecting buyers and suppliers, even if there is mutual motivation on the part of MNEs and SMEs to create linkages on their own. While information gaps exist in both directions, the report finds that lack of information is more a binding supply-side problem and less of a buyer's issue, indicating that supply-side information gaps need to be addressed foremost. Nonetheless, solutions such as a high-quality supplier database (and that allows suppliers to build their reputation) is needed so that more domestic suppliers can be recognized by MNEs. While these constraints provide justification for government intervention, the analysis points to policy and institutional constraints, such as lack of enforcement, insufficient policy alignment, and poor implementation and capabilities constraints in the public sector.
10. Existence of public sector constraints justify the value of private sector involvement in government linkage programs as well as private sector solutions to address linkage issues. Within Vietnam, early successes of private sector solutions can be found, such as in the case of *Thanh Long Electronics Production Company* and *Tam Hop Company* in the electronics and automotive sectors, respectively. These Vietnamese firms have successfully addressed supply-side constraints through the support of FDI-tier 1 suppliers. This report's review of successful linkage cases, however, found that there are not many examples of successful domestic companies that have integrated into GVCs. One of the firms, *Thanh Long*, also received technical assistance from development partners and governmental organizations, particularly JICA and SIDEC. Overall, private sector approaches remain valid and substantially important in achieving the linkage objective. In fact, international experience also shows the importance of the role of the private sector in achieving this endeavor. Furthermore, public sector and private sector approaches on linkages are not incompatible, as both approaches have the same objective of helping firms overcome supply-side constraints, and seizing latent opportunities rather than attempting to force linkages.
11. Drawing on international approaches and models (i.e., Czech Republic, Malaysia, Chile, and Costa Rica) that have been successfully employed in addressing supply-side constraints and market failures hindering linkages and in implementing linkage programs, the report highlights the critical policy and institutional elements that may be equally important for Vietnam as it forges ahead in the operationalization of its SI development program. Key notable elements regarding (i) the institutional framework and inter-ministerial coordination, (ii) the facilitation of information flows and contacts between domestic and foreign-owned firms, (iii) the provision of targeted support to strengthen domestic suppliers, and (iv) the

reduction of horizontal constraints in the business environment, feed directly into the roadmap for the implementation of this program proposed at the end of the report (cf. below).

12. While Vietnam already has programs in place to support SMEs, these suffer from shortcomings that limit their capacity to boost competitiveness and foster linkages. The mapping and review of select SME programs and policies undertaken in Chapter 4 sheds light on the alignment of these programs with the constraints faced by SMEs and obstacles to linkages, and highlights gaps. These programs range from technological upgradation, innovation to market development, training and skills as well as standalone financial packages. The analysis finds that while existing SME support programs appear in theory to address the constraints that firms face in Vietnam, the programs' effectiveness is not clear given lack of monitoring and evaluation systems to assess outcomes and impacts. Furthermore, a key lesson from this review highlights the need for high-level strategic coordination as well as careful program-level design and implementation to ensure effectiveness and impact. The review suggests that Vietnam would benefit from a consolidation of overlapping programs; using life cycle stages of firms (start-up, growth, established stages) to identify missing SME support programs; and ensuring consistent M&E. Program implementation would also be improved by ensuring program sustainability (including budget predictability); involving the private sector in program design and implementation; and improving program processes of the 5-year SME Development Plan.
13. Based on the conclusions of previous chapters, Chapter 5 proposes a 'Roadmap for Implementing the Supporting Industries Program and Strengthening SME Competitiveness'. This roadmap brings together international and national key lessons learned in implementing government support programs. Recognizing that the success of the SI program predicated on packaging integrated and complementary solutions for firms rather than piece meal efforts, it suggests three key pillars for the operationalization of the SI program in Vietnam (cf. figure below). A fourth complementary pillar is also discussed, proposing measures that can be undertaken to tackle the key horizontal constraints in the enabling environment.

Core Pillars of the Proposed SI Implementation Roadmap



14. The **first** pillar seeks to strengthen and streamline the governance and institutional arrangements for SI policy and linkage program implementation (specifically a dedicated program for development of suppliers in Vietnam), through the (i) set-up of an inter-ministerial committee on supporting industry development, (ii) private sector membership in the committee, and (iii) provision of greater autonomy and capacity-building for the lead agency in SI development. These measures address the lack of coordination among government institutions and between government and the private sector, and fragmentation of policies and programs to improve the business environment for SMEs and supporting industries.

15. The **second** pillar seeks to connect MNEs and local firms by reducing search costs for both local and foreign firms, through organization of informational events about FDI sourcing decisions and requirements, development of an online high-quality national supplier database (centered around priority sectors), and implementation of effective business-to-business (B2B) match-making services that will help foster productive linkages between high potential local suppliers and new or existing foreign investors in Vietnam. This pillar specifically addresses key constraints and market failures in focus sectors, particularly lack of information and coordination failures between supply and demand.

16. The **third** pillar aims to design and implement a demand-driven Supplier Development (SDP) program for upgrading local firms in key sectors with significant linkage potential. It highlights a package of vertical and horizontal support initiatives in specific sectors for the SDP - including specialized consulting services, managerial and technical skills, machine upgradation, and meeting labor and environmental standards and certification - that upgrades domestic capabilities. This support can be provided through the use of behavioral incentives which can be targeted towards both local suppliers for upgrading, and to MNEs to encourage sourcing locally or invest in supplier training and research and development. The range of instruments employed to make the local suppliers bankable can vary from direct support (e.g. matching grants) to indirect fiscal support through tax incentives. These incentives must be tied to firm performance, targeted, and aimed at minimizing market distortions (e.g., possible crowding out of market driven approaches on linkages). This pillar seeks to address the lack of competitiveness of local suppliers.

17. The **fourth** pillar (complementary pillar) aims to address horizontal constraints, particularly key binding constraints in the enabling environment in Vietnam that cut across sectors related to skills, management capabilities, innovation, and standards. Given that multiple SME programs already exist in Vietnam that try to address some of these horizontal constraints in the enabling environment, this pillar recommends addressing some of the key systemic issues on program design and implementation of SME support programs.

WBG's on-going support on linkages

18. At MoIT's request, the World Bank has initiated a technical and advisory project for supporting the linkage agenda that includes, among other things, upgrading firm capacity through a pilot supplier development program; building a national high-quality on-line supplier database as well as building capacity mainly within MoIT to host and maintain such database and implement effective B2B match-making services to foster productive linkages between high potential local suppliers and new or existing foreign investors in Vietnam; developing a new FDI strategy that would help attract a new generation of FDI; and capacity building within MoIT and related institutions. The approach being adopted in Vietnam is inspired by the Czech Republic model of SDP. As this is a pilot approach, an impact evaluation is being initiated in parallel to learn the lessons as the program is scaled up with time. Specifically, it can help identify if the choice of instruments is bearing results and areas where further improvements may be needed.

Chapter 1: Introduction

Objective and Background

19. **The objective of this report is to inform the Government of Vietnam’s on-going efforts to enhance the competitiveness of the domestic private sector¹ and to facilitate Foreign Direct Investment (FDI) spillovers and linkages.** This report is anchored in the Government’s “Supporting Industries” (SI) policy framework that aims to upgrade the capabilities and technology of local enterprises to facilitate supplier linkages with FDI, as well as enable them to enter foreign markets (cf. below).² Achieving progress in these areas is considered integral to Vietnam’s ambition of expanding its participation in global value chains (GVCs) as well as moving up the value chain into higher value added activities.

20. **FDI’s spillover potential – the productivity gain resulting from the diffusion of knowledge and technology from foreign investors to local economy – is considered the most valuable input to growth and development.** Vietnam, like many countries in the region, has attracted FDI in the expectation that new technology, upgraded management skills, exposure to new market opportunities brought by MNEs will spillover to domestic enterprises, leading to productivity improvements. A large part of productivity gains from spillovers are associated with vertical linkages between MNEs/lead firms and domestic firms along the supply chain.³ Indeed the emergence of domestic suppliers to MNEs has been a key factor allowing other East Asian countries - such as Korea, Taiwan, and Singapore - to move up the value chain. The focus of this study is thus on supply chain linkages which is aligned to the SI policy framework.

Box 1: Supporting Industries (SI) Development Program, 2016-25

Key areas of enterprise support includes:

- Develop suppliers for foreign and domestic clients
- Adopt management systems aligned to requirements of GVCs in corporate governance and production
- Improve quality of human resources for SI through training
- Undertake Research and development, transfer of technologies for manufacturing of spare parts, accessories, raw materials and materials.
- Develop SI information web portal

Source: *Decision on SI program, Jan 18, 2017, GoV*

21. **Creating linkages is not automatic, as various supply-side constraints and market failures often hinder the process.** International experience and academic research has shown

¹ Domestic enterprises in Vietnam are predominantly SMEs, comprising 97.6 percent of total enterprises according to “White Book on Vietnam’s SMEs 2014,” published by the Ministry of Planning and Investment (2014), Ha Noi: Thong Ke publisher, p. 36. These SMEs have less than 100 employees for trade and services sectors.

² SIs are defined as industries that manufacture materials, components and spare parts to provide for the manufacturing of completed products. In this report, SI program and developing backward linkages will be used interchangeably. It may also be noted that it involves both foreign and locally owned suppliers. The term “local” and “domestic” firms is also used interchangeably as is FDI, MNCs and foreign invested firms.

³ In addition to supply chains – which is the focus of this study- additional mechanisms through which FDI spillovers are transmitted to local economy include labor turnover (i.e. knowledge embodied in labor can transmit from foreign to local firms), and competition and demonstration effects.

that while many countries have successfully attracted FDI, the record with capturing spillovers is mixed due to a variety of market failures (Moran 2014). Linkage process is a function of multiple factors that include the spillover potential of FDI, the absorptive capacity of domestic firms, as well as the host country's business policy and institutional environment.⁴ Significant scope exists for sharpening our understanding of the constraints and supply-side market failure that deter linkages in Vietnam.

22. A rich knowledge base about the Vietnamese private sector was established in recent years. Several important firm-level studies have been carried out in Vietnam,⁵ that have presented a consistent view of enterprise level competitiveness challenges and the nature of FDI linkages in Vietnam. Some of the main conclusions emphasized in these studies include:⁶

- The domestic private sector has suffered from a declining growth of labor and total factor productivity (TFP) since the turn of the century, representing a reversal from the rapid growth of the 1990s and undermining future GDP growth prospects. While formal small and medium enterprises (SMEs) have grown in number and become increasingly capital intensive since the mid-2000s, there are concerns regarding their capacity to become larger over time and reap scale economies. The lack of dynamism of services sectors has been particularly highlighted.
- A playing field tilted in favor of firms that are state-owned, well connected or foreign-owned, in combination with a poor general business environment (e.g. business regulations, backbone services and infrastructure) severely undermine the competitiveness of domestic firms, large and small.
- Most domestic firms in Vietnam have inadequate capacity to establish linkages with foreign firms and meet their requirements in terms of quality, prices and reliability, and to absorb new knowledge and technology. Firms' insufficient innovation capacity and the limited skills base on which they can rely have been identified as major obstacles. Firms' investments tend to be directed towards maintaining or increasing production capacity, but rarely towards improving productivity, product quality and diversification, and innovation.

23. This report focuses on the operationalization of the FDI linkage development agenda in Vietnam. Building on the diagnostics established by the aforementioned studies, it reviews both international and domestic experiences, and offers recommendations to strengthen policies and programs to support enterprise competitiveness and linkages in Vietnam.

⁴ This framework draws on the work done by Farole T. and D. Winkler (WB, 2012); and Paus and Gallagher, 2008.

⁵ These include: Vietnam 2035' (World Bank and MPI 2016), 'Vietnam at a Crossroads' (World Bank 2016), Brandt et al. (2016), and Newman et al. (2015). Data sources include Firm Census data (GoV) and customized surveys, dating from the 2000s to early 2010s.

⁶ See Annex 1 for a more detailed summary of the main conclusions of recent reports and studies, including 'Vietnam 2035' (World Bank and MPI 2016), 'Vietnam at a Crossroads' (World Bank 2016), Brandt et al. (2016), and Newman et al. (2015).

Relevance to GoV's Policy Priorities and Programs

24. **This work is fully aligned with the Government's strategic priorities regarding private sector development.** These priorities are notably outlined in Vietnam's *Socio-Economic Development Strategy 2011-2020*, the *Vietnam Vision 2035* Report, as well as in the World Bank Group's 2016 *Systematic Country Diagnostic (SCD)* for Vietnam, which consistently underline the need for strengthening competitiveness, particularly for the domestic private sector as Vietnam aspires to avoid the "middle-income trap" and become a modern industrialized country. The key counterparts for this agenda are the Ministry of Industry and Trade (MoIT), the lead agency with the mandate for strengthening GVCs, and the Ministry of Planning and Investment (MPI).⁷
25. **The conclusions from this study can inform the design and support the implementation of key GoV policies and programs that aim to strengthen domestic private sector and facilitate linkages.** A new decree for the promotion of "supporting industries" was approved, followed by the recently issued Decision on "Supporting Industry Development Program for the 2016 – 2025 period," that aims to operationalize the decree.⁸ This second document outlines the key elements of the program for enterprise capacity enhancement, HR training, financial support, promotion of R&D, technology and innovation. Furthermore, an SME law has been enacted recently to strengthen support to SMEs in Vietnam.⁹ The law is expected to identify the areas of support for SMEs as well as the responsible implementing agencies given the cross-cutting nature of constraints faced by SMEs.¹⁰ The roll out and implementation details of the new programs still need to be worked out and, given the mixed record of GoV programs to support domestic firms, there is great value in identifying gaps and lessons learned from previous domestic experience as well as to leverage international experiences. Lastly, the MPI, through the Foreign Investment Agency (FIA), is in the process of formulating a new FDI Strategy and implementation action plan, with support from the WBG. This strategy aims to promote and attract "2nd Generation" foreign investments to Vietnam, with potential for higher domestic value addition, improved environmental sustainability and green technologies, and enhanced FDI-SME linkages.

⁷ Within the MoIT, it is the former Department of Heavy Industries, or the current Industry Agency that is responsible for the SI agenda..

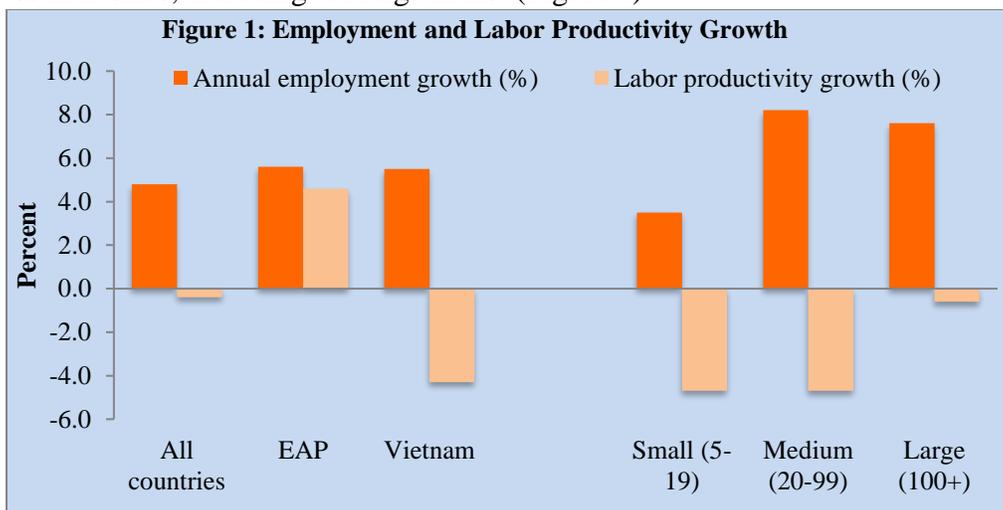
⁸ Respectively, *Decree for Supporting Industries No. 111/2015/ND-CP*, dated November 3rd, 2015, and *Decision No. 68/QĐ-TTg* of January 18th 2017.

⁹ The impetus for the new law has been driven by the changing global environment and the identification of significant gaps in effective SME support. Please refer to the Government of Vietnam. 2015. "*Reform Plan and Policy to Improve SME Effectiveness in the Economic Restructuring, Summary Report*". The Central Economic Committee, Vietnam.

¹⁰ Under the law, there will be two categories of support: (a) general support for all SMEs, and (b) specific support provided to specific categories of SMEs: innovative start-ups; Business Household enterprises converting to SMEs; and SMEs linked to value chains and clusters. The former support includes: access to credit, taxation support, land access, incubation and enhancement of technological capacity, market extension, information and consultancy and HR training. Specific support will be linked in line to the issues faced by SMEs.

Country Context

26. **Vietnam is a posterchild of a fast-track development success story.** Economic growth since the 1990s has been among the fastest in the world, and its pace of poverty reduction almost unprecedented. GDP growth averaged 5.5 percent annually, real per capita GDP more than tripled between 1990 and 2014, earning Vietnam a middle-income country status in one generation. Expanding opportunities in the private sector - and especially better-paid formal wage employment – has been a powerful channel for inclusive growth in Vietnam. As part of the country’s structural transformation drive from a primarily agrarian economy to one based on manufacturing and services, over 20 million new, largely private sector jobs have been created.
27. **Trade and investment continue to be the key drivers of Vietnam’s rapid development.** As one of the most integrated countries in the world¹¹ with a comparative advantage in labor-intensive manufacturing, Vietnam has successfully attracted large amounts of efficiency-seeking FDI and gained entry into GVCs. Equally impressive has been its export performance, with annual export growth rate of more than 18 percent spanning the past two decades.¹²
28. **But with productivity growth stagnating, there are now emerging concerns about Vietnam’s competitiveness.** Economic growth has moderated in recent years *vis a vis* the earlier decade. Productivity growth, the major driver of GDP growth in the early years of Vietnam’s transition has diminished over the past decade. In 2015, enterprises in Vietnam witnessed labor productivity decline of more than 4 percent compared to a close to 5 percent productivity increase in the EAP on average. In addition, the productivity decline is reflected across firm sizes, including for large firms. (Figure 1)



Source: World Bank Enterprise Survey, 2015.

¹¹ In 2015, the trade to GDP ratio stood at 170 percent of GDP.

¹² With imports trailing not far behind (reflecting high import content) during the same period. In the last 5 years, Vietnam’s merchandise export growth averaged 15 percent - almost 5 times the global growth.

29. **Private sector has dual track characteristics, with high performing FDI integrated in GVCs and a nascent domestic private sector.** Currently the contribution of large firms, primarily the foreign-invested sector accounts for about 30 percent of employment in Vietnam’s enterprise sector¹³ and 70 percent of total exports. Only 20 percent of domestic enterprises export. SMEs - representing the bulk of the domestic private sector in Vietnam - lack the scale, business sophistication and technology needed to boost productivity for market expansion. According to the *Global Competitiveness Index* (WEF, 2016) Vietnam is ranked 100 out of 138 economies on “business sophistication” pillar and 112th for “technological adoption” pillar, behind the Philippines (42nd and 57th), Thailand (35th and 53rd) and Malaysia (13th) and 19th)¹⁴ – reflecting the country’s competitiveness challenge vis-a-vis its regional competitors.
30. **While Vietnam’s entry in GVCs through the foreign invested firms has brought the country significant benefits of export-led growth and employment, FDI has remained largely disconnected from the domestic private sector.** Establishing itself as a center of manufacturing production and exports, Vietnam specializes in labor-intensive and final assembly stage of the GVCs. The country is a major exporter in apparel and mobile phone handsets. Many of Vietnam’s higher value manufacturing exports have high import content and low domestic value addition, and thus the net contribution to the economy of exports by foreign-invested firms can be overstated. This is also reflective of the limited inroads that domestic SMEs have made as suppliers to the export-oriented production of the FDI.¹⁵ Of the supply linkages that exist, these tend to be largely associated with low value-added tasks such as basic materials and packaging. Essentially, most domestic SMEs are integrated indirectly into GVCs (rather than as a direct exporter) and produce non-core (peripheral) parts of the upstream value chain or are involved in downstream assembly. This is reflected in Vietnam’s ranking with regard to quality of local suppliers in the *Global Competitiveness Index* where Vietnam is ranked 109 out of 138 economies behind the Philippines (74th), Thailand (77th) and Malaysia (22nd).
31. While recent progress is reported in developing linkages with FDI,¹⁶ the pace is slow given the Government ambitions and regional comparators. At the current stage, Vietnam’s SMEs are mostly concentrated in the third-tier supplier industry, which is characterized as an industry producing simple and low value-added raw material inputs and/or components (Figure 2). In the ICT hardware (electronics sector) and automotive sectors, these include plastics, rubber, metal parts, and molding. This third-tier supplier industry is also de-linked

¹³ This represents close to 7 percent of the total labor force.

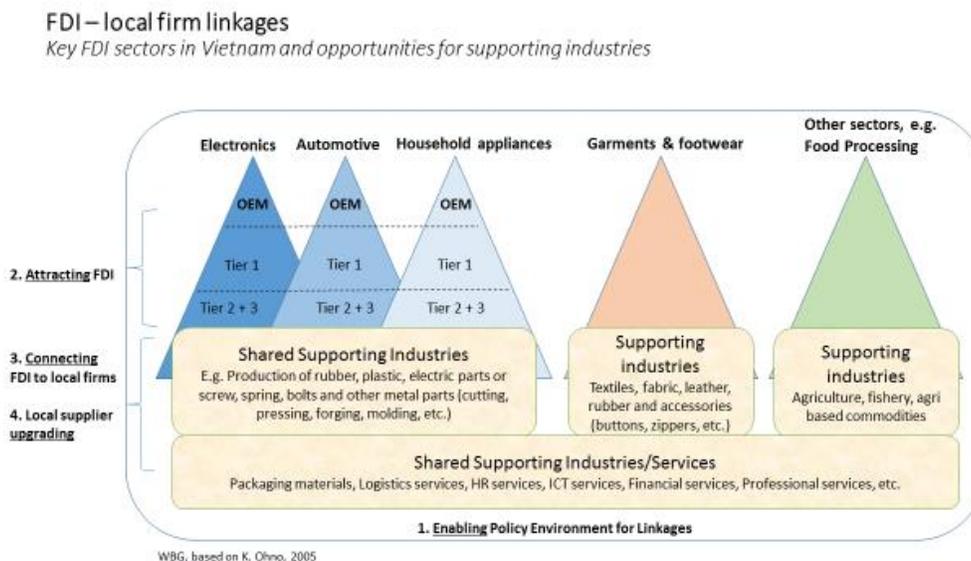
¹⁴ This is based on responses from an Executive Opinion Survey undertaken by the World Economic Forum (WEF) for the Global Competitiveness Index, 2016-17.

¹⁵ Japanese FDI – as one of the largest foreign investors in Vietnam – sourced 32 percent of its inputs from suppliers operating in Vietnam in 2015 when compared to its local sourcing record in China (65%), Thailand (55%), and Indonesia (40%).

¹⁶ For instance, Vietnamese enterprises are beginning to make inroads in Samsung’s component supply chain. The number of Tier 1 (direct suppliers) Vietnamese vendors increased to 20 in 2016 from only 4 in 2015. Altogether nearly 200 local enterprises are participating in the component supply chain used by three Samsung plants in Việt Nam, including 20 Tier 1 vendors and 178 tier-2 vendors. Read more at <http://vietnamnews.vn/economy/349749/200-vn-firms-in-samsung-chain>.

from lead firms (or even first-tier suppliers), which possess the technology and knowledge that can increase productivity of these firms. That is, third-tier suppliers are indirect suppliers

Figure 2: FDI-local firm linkages



to lead firms/FDIs, and thus do not have direct contact with these FDIs. Because of where SMEs are positioned, there is minimal product transformation at the domestic economy, meaning that spillover possibilities are not maximized, suggesting that there is scope to increase the tasks or activities in the ‘currently short’ domestic value chain (through more activities in the upstream and downstream sectors). The goal for the Government is to develop networks of first-tier (direct) and second-tier/third-tier (indirect suppliers to producers) domestic suppliers linked to the final assembly stages with the idea of positioning these firms to transition towards production of more sophisticated products and diversification of export basket (Figure 2). Moreover, domestic firms have the potential to gain lead firm status in the long run.

32. While SMEs may be expected to have the largest productivity gains in increasing linkages, not all SMEs can be candidates for linkages. In an era of GVCs, where MNEs are competing in international markets, and their survival depends on world-class levels of efficiency and productivity, they need to source their inputs from equally competitive suppliers.¹⁷ Developing countries frequently confound supply-chain creation with support for *all* SMEs. A close look at case studies of supplier-development programs and vendor-development programs does not support the proposition that small firms should be the preferred targets for host country match-makers or MNC talent-scouts. To the contrary, there appears to be evidence that medium-sized and larger indigenous companies “are more likely than their

¹⁷ Vietnam also faces a more challenging global horizon. Wages in its competitor countries like Bangladesh and Cambodia are already lower, and the “demographic dividend” is diminishing.

smaller counterparts to possess capabilities needed for linkages that result in ‘win-win’ scenarios”¹⁸ for near term pay-off. At the same time, building firm capabilities and tackling the key cross-cutting enabling environment constraints that SMEs face in Vietnam remains critical for strengthening private sector’s contribution to overall growth and competitiveness of the country.

33. Over the last 15 years, the GoV has put in place policies and programs to enhance competitiveness and innovation capacity of the domestic private sector. The programs include both business development services (BDS),¹⁹ and financial support for SMEs. The BDS programs range from technological upgradation, innovation to market development, training and skills as well as standalone financial packages.²⁰ Policy measures include improvement of the legal framework for market entry,²¹ operation as well as incentives policies. While Vietnam’s Doing Business ranking has improved (from 98 in 2012 to 82 in 2017), the business environment and regulatory framework require further strengthening—to ensure equality between actors, improve access to finance and markets, protect property rights, and enforce competition policies.²² In recognition that more needs to be done and that some of the existing programs may not be effective, new policy initiatives are underway that are expected to enhance competitiveness of the domestic private sector and promote linkages. This includes Government’s priority to develop a network of local suppliers – as articulated in its “Supporting industries” policy framework as well as the new SME law.²³

Conceptual Approach and Scope

34. **Several key dimensions determine the potential for linkages and spillovers from FDI.** This report draws on the conceptual framework presented by Farole and Winkler (2014), which analyzes this potential by considering three mediating factors: (i) the spillover potential of foreign companies, (ii) the absorptive capacities of domestic firms, and (iii) host country factors and institutional framework.²⁴ While this framework considers several transmission

¹⁸ UNCTAD (2011). How to Create and Benefit from FDI-SME Linkages: Lessons from Malaysia and Singapore (Best Practices in Investment for Development series).

¹⁹ Business development services (BDS) are defined as the array of non-financial services critical to the entry, survival, productivity, competitiveness, and growth of SMEs. BDS include training, consultancy and advisory services, marketing assistance, information, technology development and transfer, and business linkage promotion.

²⁰ These include bank loans by providing credit guarantee funds, and the Credit Guarantee Fund of Vietnam Development program. Central Economic Committee GoV, (2015).

²¹ The record with new firm entry has been impressive in Vietnam *vis a vis* its competitors. Within the domestic private sector, it is the young firms that have created the most jobs, particularly young small firms. See Aterido R. and Mary Hallward-Driemeier (2015).

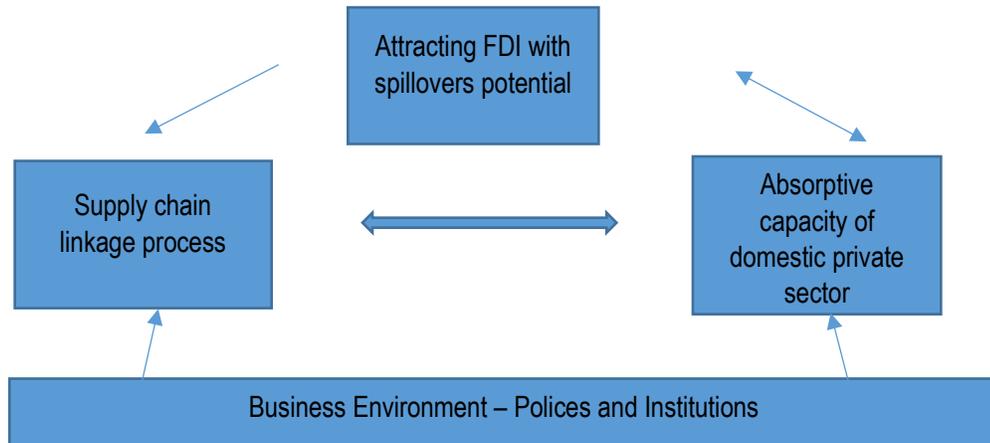
²² Vietnam Vision 2035.

²³ The WBG has already been engaging with the government on both SI and SME agenda. The former is being undertaken as part of an on-going IFC advisory services project that includes piloting a supplier development program in two sectors, and developing a new FDI strategy and action plan to attract new cadre of FDI that will help Vietnam enter into new – for example in hi-tech and green industries - GVCs. With respect to SME law, the World Bank has provided inputs on some drafts of the law, based on the early findings of the Enterprise survey and international good practices note.

²⁴ The *spillover potential of foreign investors* is affected by degree and structure of foreign ownership, FDI motive and global production and sourcing strategies of GVCs. This includes the extent to which FDIs share their blue prints and guide suppliers on how to meet them, and the nature of technology that MNEs bring, for examples. *Absorptive capacity* or ability to absorb foreign technology and knowledge is in turn shaped by characteristics of domestic firms i.e. technology gaps between foreign and

channels for spillovers, including labor turnover and market restructuring, the present study focuses on supply chains as the main channel and underlines the supply-side constraints and market failures that may deter this process in Vietnam. (Figure 3)

Figure 3. Conceptual Approach: FDI Spillover Potential, Domestic Private Sector Capabilities and Business Environment



Source: Adapted from Farole, T. and D., Winkler (2014).

35. The following streams of work are undertaken to examine the multiple dimensions outlined in the above approach.

- *Enterprise productivity and investment climate analysis:* The first part of the analysis examines key business environment constraints that hinder enterprise level productivity and innovation in Vietnam, using the latest Enterprise Survey (ES) data collected by the World Bank, as well as complementing it with recent analytical work conducted on these issues.²⁵ Focusing on linkages, it attempts to better understand which firm characteristics and investment climate constraints are the most binding for linkages with foreign-owned companies, with a view to identifying promising areas for policy interventions to develop such linkages. Comparing domestic firms that are suppliers and those that are domestically focused, the analysis also considers both internal constraints related to firms' capabilities and external constraints in the business environment. It highlights what firm characteristics and capabilities promote absorption of FDI spillovers, and what type of innovation and capacity building lead to economic upgrading, on a sustainable basis. Breakdowns of the data by firms'

domestic firms, R&D, human capital, firm size, exporting sector dynamics, competition, and type of ownership. *Policies at host country level* can range from labor market regulations, intellectual property rights, access to finance, learning and innovation infrastructure, trade and investment policy, institutions and governance, and competition. All these processes are interdependent and dynamic. For instance, changes in domestic firm characteristics and/or host country policy changes can influence foreign investors' production and sourcing strategies.

²⁵Enterprise Surveys are comparable firm-level surveys of representative samples of different country's private sector, regularly conducted by the World Bank since 2002 (see: <http://www.enterprisesurveys.org>). The latest survey for Vietnam, conducted in 2015-2016 covered 996 firms, including 294 panel firms also covered by the previous survey in 2009.

characteristics (e.g. ownership, age, location, sector) are used where most relevant and Vietnam is benchmark against regional competitors (e.g. Thailand, Malaysia, Indonesia, Philippines, and Cambodia). Finally, the analysis attempts to use available information on gender in the data to highlight specific constraints faced by women in the private sector. This analysis is presented in *Chapter 2*.

- *Linkages between FDI and domestic private sector*: This stream of work first outlines the constraints that may deter backward linkages, based on academic literature and empirical experience in other countries. Focusing on Vietnam, it then identifies the demand and supply side constraints and market failures that are driving the lack of linkages in selected sectors (i.e., electronics and automotive). It presents key set of interventions that would be necessary to address these constraints in Vietnam, bringing together different approaches and models that have been successfully employed in other countries for SDPs. Lastly, presents the on-going initiative that is being supported by the WBG in piloting the supplier development program in Vietnam context for facilitating domestic enterprise participation in domestic value addition (DVA) and global value chains, through economic up-grading, greater innovation and productivity enhancement. This analysis is presented in *Chapter 3*.
- *Mapping and Review of selective SME programs and policies*. This chapter undertakes the mapping of SME programs and policies to shed light on the alignment of these programs with the constraints faced by SMEs. Since the last 15 years a plethora of policies and programs, including business development services (BDS)²⁶ as well finance, have been put in place to support SME development and to facilitate linkage development. The programs range from technological upgradation, innovation to market development, training and skills as well as standalone financial packages.²⁷ The work is based on new work that undertakes mapping and review of selective SME programs and policies that under implementation supplemented by a targeted survey of beneficiaries, and conduct of two rounds of stakeholder workshop. It then assesses their alignment with the supply-side constraints and market failures that domestic firms face in Vietnam. Are these programs and policies aligned to support the needs of the enterprise competitiveness and linkages in Vietnam? What are the gaps? Going forward, what should be the priority focus areas for the Government, and how can the program design learn from good practice from other countries? This is the focus of *Chapter 4*.
- *Chapter 5* offers recommendations to strengthen policies and programs to support linkages and competitiveness of domestic enterprises in Vietnam.

²⁶ Business development services (BDS) are defined as the array of non-financial services critical to the entry, survival, productivity, competitiveness, and growth of SMEs. BDS include training, consultancy and advisory services, marketing assistance, information, technology development and transfer, and business linkage promotion.

²⁷ These include bank loans by providing credit guarantee funds, and the Credit Guarantee Fund of Vietnam Development program. (Central Economic Committee GoV, 2015).

Chapter 2: Enterprise Productivity and Investment Climate Analysis

36. **As the introductory chapter outlined, the development of a vibrant and competitive private sector is essential if Vietnam is to achieve its objective to increase domestic value addition and strengthen FDI linkages.** Overall, productivity and innovation appear as two key dimensions of firm performances that will need to be improved in order for more Vietnamese firms to meet MNEs and lead firm requirements of product and service quality standards, price, scale and on-time delivery to become viable suppliers. Furthermore, technology and knowledge transfer from FDI and exposure to international markets require complementary capabilities on the part of domestic firms to be able to effectively use and internalize the spillovers (Lall, 1992).²⁸
37. This chapter analyzes the constraints in the external business environment, as well as internal constraints related to firms' capabilities that undermine the competitiveness of the Vietnamese private sector, and linkages with MNEs. Building on previous work conducted²⁹ and using the latest Enterprise Survey (ES) data collected by the World Bank, the first section starts by providing an updated assessment of firms' productivity and innovation capacity - as two key dimensions of competitiveness. In the second section, the analysis then attempts to identify which firm characteristics and investment climate constraints are the most binding for linkages with foreign-owned companies, with a view to identifying promising areas for policy interventions to develop such linkages.³⁰

Productivity Analysis³¹

38. Basic measures of firm-level productivity can be computed using the ES data in order to shed light on firm performances in Vietnam, including labor productivity (defined as value-added per worker), capital productivity (defined as the ratio of sales to the value of machinery and equipment) and TFP. This section presents summary information on several such measures, although the usual caveats should be kept in mind when interpreting them.³²

²⁸ These capabilities are primarily internal to the firm, and cover both production and technological/innovation capabilities which accumulate over time. These include managerial practices and organizational capabilities which evolve and become apparent in management practices and routines.

²⁹ These include notably: 'Vietnam 2035' (World Bank and MPI 2016), 'Vietnam at a Crossroads' (World Bank 2016), Brandt et al. (2016), and Newman et al. (2015). See Annex 1 for a summary of their main conclusions.

³⁰ As ES survey data does not focus on firm capabilities, the report draws on the findings of the World Management Survey (WMS) - a Harvard-LSE-Stanford research project - that has developed a survey tool to measure management practices around the globe since 2002. The survey covers four dimensions of management practices - operations, monitoring, targets and people management (Bloom, N. and J. Van Reenen (2015)).

³¹ This section draws from a background paper by Clarke (2016), available upon request. Data points on each measure of performance are for the median firm, based on ES data (latest survey for each country). Unless otherwise noted, amounts are expressed in 2010 US\$.

³² In particular, labor productivity presents the advantage of relying on more solid data and fewer assumptions. However, it varies with the capital intensity of the firm analyzed and can thus be misleading, especially for cross-sector comparisons. In contrast, TFP takes into account the contribution of the different production factors such as labor and capital. However, the quality and availability of data on capital use in firm-level surveys such as ES is generally lower than for labor, especially in developing countries and for small firms. Moreover, measures of TFP can be influenced by various dimensions of firms' operating environment (e.g. evolution of demand, access to market, market power).

39. **Overall, results suggest that productivity is not particularly low in Vietnam compared to other Asian countries, although this may not be true for larger firms.** Labor productivity compares favorably with other Southeast Asian countries and India, although this appears not to be true for the firms at the top of the distribution. The apparent relatively high labor productivity of Vietnamese firms appears to be partly driven by a high and growing use of capital, although there is some evidence that they may not be using it as productively as other countries in the region or large emerging economies. While labor costs are higher than in the rest of region, they seem in line with productivity levels and thus do not seem to be a major obstacle to competitiveness. TFP seems higher in Vietnam than in most regional competitors and the BRIC countries, but further analysis would be needed to better understand whether this truly reflects higher firm performances or other factors. Finally, comparisons within Vietnam suggest that there are significant differences in productivity across regions, but that larger firms are not more productive than smaller ones as would be expected, which again may indicate weaknesses at the top end of the distribution.

40. *Labor productivity:* Labor productivity appears to be relatively high in Vietnam, where the median manufacturing firm produces about US\$10,500 of value-added per worker. This compares favorably with other countries in Southeast Asia. It is also more than in India, but significantly less than in other BRICs economies (Figure 4).

41. Estimations of the distribution of labor productivity suggest that it peaks at US\$8,000 and that few firms produce more than US\$60,000 of value added per worker (Figure 5). While labor productivity is higher in Vietnam than in Cambodia at low deciles of the distribution (e.g., US\$2,766 vs. US\$ 583 respectively at the 10th percentile), the reverse is true for the most productive firms (e.g., US\$61,646 vs. US\$ 92,378 respectively at the 90th percentile, and US\$106,436 vs. US\$287,632 respectively at the 95th percentile). This is suggestive of a weakness at the top of the distribution in Vietnam.

Figure 4. Labor Productivity

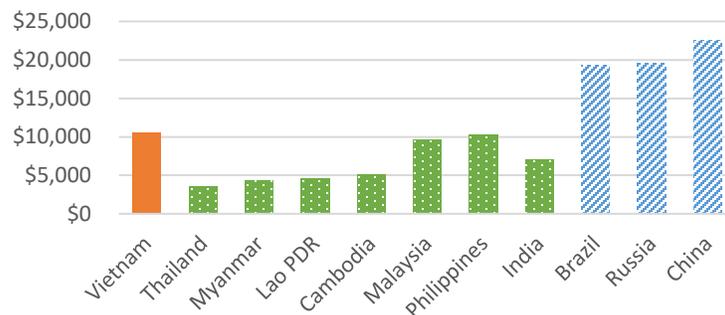


Figure 5. Estimated Distribution of Labor Productivity



Note: Kernel density estimates use an epanechnikov kernel with the optimal band width. Outliers with negative labor productivity or labor productivity were dropped when estimating the distribution.

42. *Capital intensity and productivity:* Vietnamese firms appear to be capital intensive, far more so than Southeast Asian comparators and on par with the BRICs economies (Figure 6). Although measuring capital accurately is difficult in developing countries and figures should therefore be considered with caution, the median firm in Vietnam reports having about US\$7,300 of capital per worker. This might partly explain why labor productivity is found to be higher in Vietnam than in neighboring countries, since this partial measure of productivity increases when firms substitute capital for labor. Despite being as capital intensive as BRICs firms, the median firm in Vietnam is, however, considerably less productive than them, suggesting that Vietnamese firms are not using capital as productively.
43. While capital intensity is useful to assess the quantity of capital used by firms, the ratio of sales to the value capital can give an idea of how productively they use it.³³ The available data suggests that capital productivity is low in Vietnam (Figure 7), with a ratio of around 160 percent for the median firm, lower than any of the comparator countries in Southeast Asia or in any of the BRIC economies. This confirms that capital might not be used very efficiently in Vietnam. It may also suggest that firms are not, on average, highly capital constrained, since this would be expected to show in the data through a relatively high capital productivity.

Figure 6. Capital Intensity

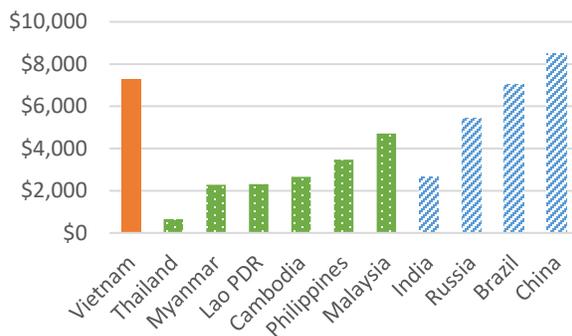
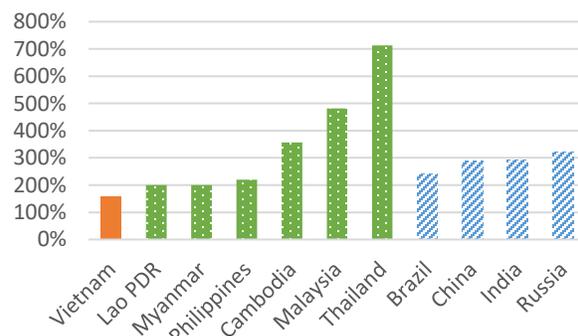


Figure 7. Capital Productivity



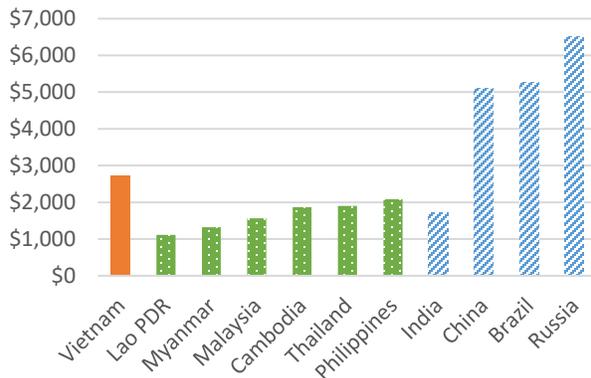
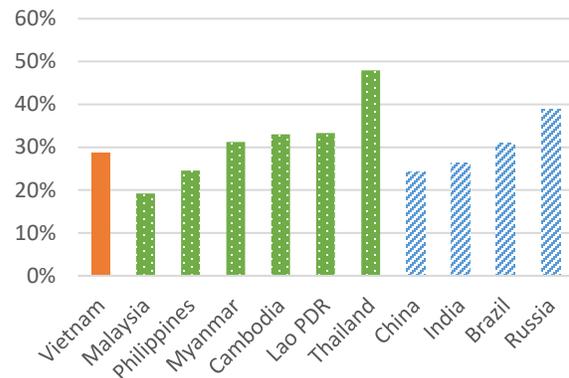
44. *Labor costs:* Although the productivity measures above provide information on how competitive firms in Vietnam are relative to firms in other developing economies, they can be

³³ Capital productivity does not take use of labor into account and will thus generally be higher for firms that substitute workers for capital in their production process. Because both capital and value-added are measured in monetary terms, the ratio is purely relative and does not have a natural unit.

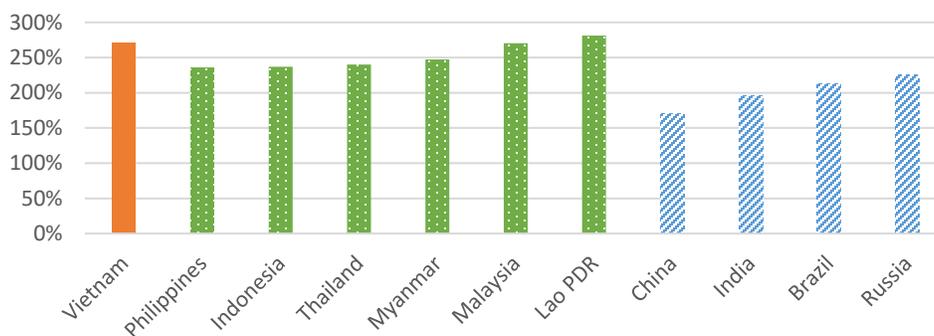
misleading when considered in isolation. Labor productivity, in particular, does not distinguish between skilled and unskilled workers, although we would expect both productivity and wages to be higher for firms employing highly skilled workers. Wages also reflect local labor market conditions, i.e. they are higher when the supply of workers is low relative to the demand. Wage levels are important because firms can remain competitive when productivity is low if wages are comparatively lower. It is therefore useful to look at labor costs, defined for each firm as the cost of all payments to all workers divided by the number of workers, when assessing competitiveness.

45. Labor costs are higher in Vietnam than in most of the regional comparator countries (Figure 8). The median Vietnamese firm reported that wages and salaries cost about \$2,739 per worker—about twice as high as in Lao PDR, Myanmar and Malaysia, and about 30 to 45 percent higher than in Cambodia, Thailand, and the Philippines. Wage costs are, however, considerably lower than in the BRIC economies other than India.
46. Unit labor costs, defined as the ratio of labor costs to value added³⁴, are higher when high labor costs are not fully reflected in high productivity and can thus allow us to assess the net impact of labor costs on competitiveness. In contrast to labor productivity, capital intensity, TFP, and labor costs, unit labor costs are not typically higher in higher income countries than in lower income countries (Clarke, 2012), since both labor costs and productivity tend to be higher in those countries.
47. Unit labor costs appear to be relatively modest for the median firm in Vietnam. Although they are higher than in China, India, the Philippines and Malaysia, they are lower than in the other Southeast Asian and BRIC economies. This suggests that, for the most part, Vietnam's high labor costs are not disconnected from productivity levels.

³⁴ Using the sales figures captured in ES only approximates unit labor costs, which would normally measure output in physical units rather than monetary value. While unit labor costs do not take capital into account, they are not measured in local currency and, therefore, are unaffected by exchange rate variations.

Figure 8. Labor Costs

Figure 9. Unit Labor Costs


48. *Total Factor Productivity*: Keeping all applicable caveats in mind concerning the quality of data, Vietnam’s TFP compares favorably with TFP in Southeast Asian and BRICS economies (Figure 10). This suggest that, after taking worker skills and education, the use of capital and sector of operations into account, the median Vietnamese firm seems to be more productive than the median firms in any of the other comparator countries except for Laos. That is, the higher labor productivity observed in Brazil, Russia and China appears to be mostly due to firms in these countries using capital, skilled workers or both more intensively than Vietnamese firms do. Similar pattern can be seen focusing on the two industries with the largest samples of firms: garments and food processing. Although some countries have higher median levels of TFP than Vietnam in both industries, Vietnam compares favorably with the comparator countries in both sectors. However, a finer analysis is needed to understand if this is true across firm categories within Vietnam.

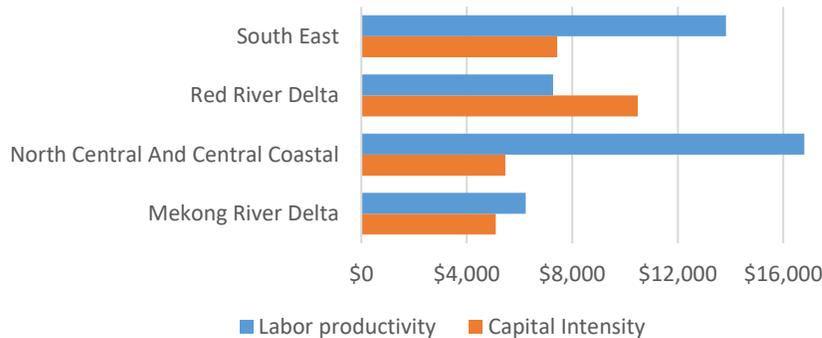
Figure 10. Total Factor Productivity


49. *Within Vietnam Comparisons*: Within country comparisons can help understand to what extend the relatively low productivity and high capital intensity of Vietnamese firms can be explained by characteristics of different groups of firms.

50. *Regions*: a breakdown by region suggests that labor productivity is lower for the median firm in the Red River and Mekong Deltas than in the Southeast, North Central and Central Coastal regions (Figure 11). This difference, which is statistically significant, does not appear to be

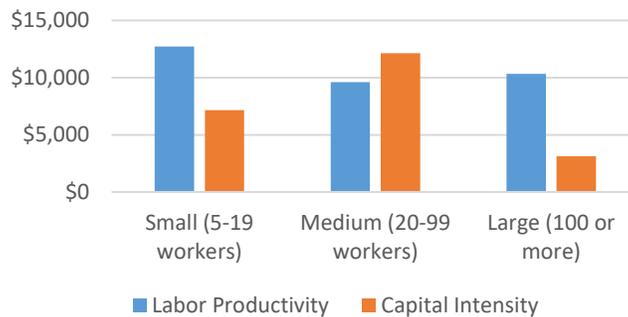
due to differences in capital intensity across regions, as this is not consistently correlated to labor productivity and cross-regional differences in capital intensity are not statistically significant.

Figure 11. Productivity Comparison by Region



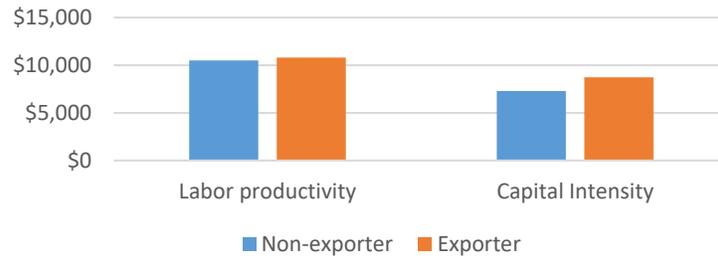
51. *Firm size*: Measured by the number of employees, this is usually positively correlated with both labor productivity and capital intensity. However, in Vietnam, no statistically significant difference in labor productivity is found between the median small, medium and large firms. A statistically significant difference is found between the median capital intensity of medium firms (US\$12,129 per worker) and large firm (US\$3,111), which is atypical (Figure 12). While more analysis would be needed to determine the factors driving this, this could be suggestive of a weakness of medium and large firms, which would normally be expected to be more productive than small ones.

Figure 12. Productivity Comparison by Firm Size



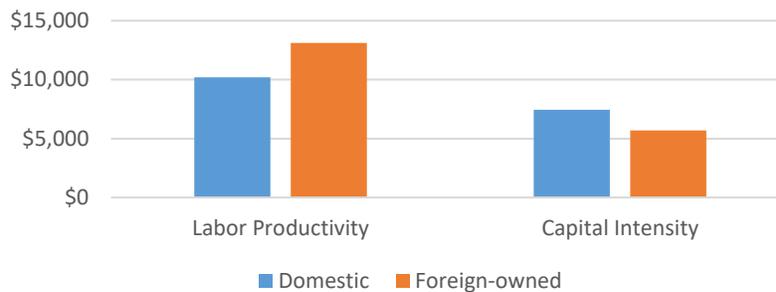
52. *Export status*: In most countries, the literature has found that exporting firms are more productive than similar non-exporting firms. This can be explained by the fact that only the most productive enterprises are able to enter export markets (i.e., self-selection) and/or that the discipline of exporting directly might improve efficiency (i.e., learning-by-exporting). Consistent with this, in Vietnam, labor productivity and capital intensity are found to be slightly higher for exporters than non-exporters (Figure 13). However, the differences are not significant, suggesting that exporting status is not a strong determinant of productivity differences across firms in Vietnam.

Figure 13. Productivity Comparison by Export Status



53. *Ownership:* Foreign-owned firms are generally more productive than domestic firms in developing countries, which can be explained by their easier access to technology and finance through parent companies. Likewise, in most countries, foreign-owned firms are more capital intensive than domestic firms. While foreign-owned firms in Vietnam are found to produce more value added per workers than domestic firms (US\$13,100 vs. US\$10,189), this difference is not statistically significant (Figure 14). Foreign-owned firms appear to be less capital intensive than domestic ones, implying that the latter may not be particularly constrained at this level.

Figure 14. Productivity Comparison by Ownership

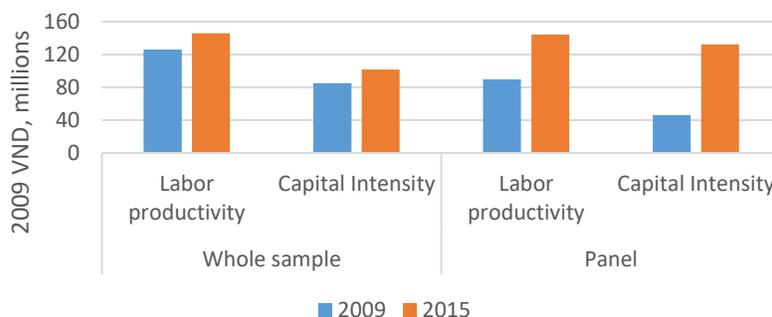


54. In most countries, exporters are more productive than non-exporters, foreign-owned firms are more productive than domestic ones, and large firms are more productive than small firms. These differences are usually sizeable, reflecting a divide between a modern economy inhabited by large, often foreign-owned, exporters and small domestic firms that focus on domestic markets. This does not appear to be the case in Vietnam. Although the differences are often in this direction—Vietnamese exporters are more productive than Vietnamese non-exporters and foreign-owned firms are more productive than domestic firms—the differences are not statistically insignificant. While there is no obvious explanation for this, possible factors could include data quality issues and higher competitive pressure or lower profit margins in the sectors in which foreign and exporting firms are concentrated (e.g. assembly tasks in light manufacturing).

55. *Evolution of productivity over time:* Successive rounds of Enterprise Surveys in 2009 and 2015, including with a panel for a subset of the sample, make it possible to assess how labor

productivity and capital intensity evolved over time³⁵. While both whole sample and panel data suggest labor productivity and capital intensity progressed during those years, the difference is more marked and only statistically significant for the panel (Figure 15). The difference is large for panel firms, amounting to a 61 percent labor productivity growth (following a 67 percent increase between 2009 and 2009) and 185 percent capital intensity growth. This appears to confirm a recent trend that Vietnamese firms are becoming increasingly capital intensive.

Figure 15. Evolution of Labor Productivity and Capital Intensity



Innovation

56. The need for future TFP growth in Vietnam to rely more on innovation has been highlighted in recent reviews of the Vietnamese innovation system (OECD and World Bank, 2014; World Bank and MPI 2016). In order to complement the analysis in these reports, this section provides firm-level evidence using a new innovation module implemented as part of the 2015 Enterprise Survey in Vietnam. It compares different categories of firms in Vietnam (e.g. sector, size, region, export orientation, ownership), with firms from comparator countries in Asia. The survey covers both subjective measures of different types of innovation (e.g. product innovation, process innovation, organizational innovation)³⁶, as well as objective measures of innovation inputs (e.g. R&D activities)³⁷.

³⁵ The comparisons for the whole sample are useful because they will generally be more statistically robust than the comparisons for the smaller panels. The panel results are also useful, but might be affected by survivor bias (i.e., better performing firms are more likely to survive) and small sample size. Panel results are unweighted, as the survey weights computed for each survey year is not applicable to the others. Because no cross-country comparisons is done, monetary amounts are presented in constant Vietnamese dong (VND), which avoids attributing changes due to shifts in exchange rates over time to changes in productivity.

³⁶ Product innovation, which refers to the creation and subsequent introduction of a good or service that is either new, or an improved version of previous goods or services, reflects firms' capability of differentiating their product from other businesses. In Enterprise Survey, product innovation is measured by three questions: whether introduced new or significantly improved products or services, whether their new or significantly improved products or services were also new for the establishment's main market, and the percent of sales from the new or significantly improved product or service. Process innovations reflects firms' capability to improve their efficiency of manufacturing products or offering services, in order to decrease unit costs of production or delivery, to increase quality or to produce or deliver new or significantly improved products. Organizational innovation is understood to encompass a series of managerial and administrative practices put into place in the organization to improve the use of knowledge, workflows efficiency or quality of goods or services.

³⁷ Subjective measures of innovation in firm-level surveys should be interpreted with caution, as they have been shown to be affected by reliability issues and tend to overestimate innovation rates in developing countries. For a detailed discussion and analysis, see Cirera and Muzi (2016).

57. The data suggests that Vietnamese firms seek to improve their products and processes no less than their peers in other countries in the region, but that they more rarely introduce products that are new to their markets and have completely new functions compared to their existing products. While a substantial proportion of firms declare spending on R&D, the average amount spent as a proportion of sales is lower than in most other Southeast Asian countries and relatively few firms in Vietnam invest in licensed or patented knowledge to support their innovation efforts.

58. *Product innovation:* As shown in Figure 16, around 23 percent of Vietnamese firms declare having introduced a new or significantly improved product or service over the three previous years. This is intermediate between countries, such as Cambodia and the Philippines, where this proportion is above 30 percent, and Thailand, Lao PDR and Malaysia, where it is significantly lower³⁸. However, the same figure suggests that a smaller proportion of Vietnamese firms consider that their main innovation was new to their market than in all other comparator countries. Another question seeks to ask firms the reason behind them introducing a new product. The most important characteristic of new products that firms in Vietnam introduce is to seek to increase quality, similar to all the comparator countries except for Lao PDR (Figure 17). However, product innovation in Vietnam appears more often than in other countries aiming at reducing costs and less often at introducing completely new functions.

Figure 16. Product Innovation

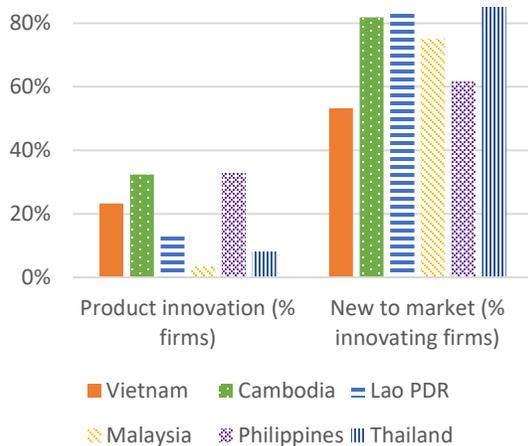
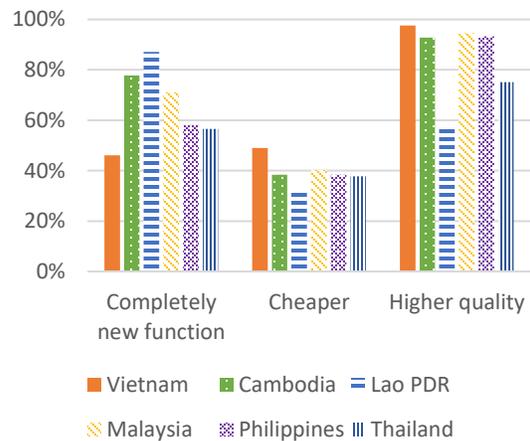


Figure 17. Characteristic of New Products

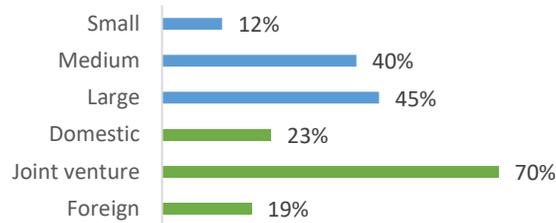


59. A breakdown of product innovation rates for different types of firms within Vietnam suggests that (i) medium and large firms innovate more than small ones, (ii) joint ventures between domestic and foreign investors tend to be more innovative, which are results also found in other Southeast Asian countries (Figure 18). This result is consistent with what we find in the literature with large and medium firms spending more on innovative activity and spillovers

³⁸ As noted, this data should be considered with some degree of caution, as firms' perception may be more or less aligned with objective assessment of innovation, and some surprising results, such as the low figure for Thailand, are unexplained.

from joint ventures with FDI leading to greater levels of innovation amongst the domestic firms with linkages.

Figure 18. Product innovation rate by firm size and ownership type in Vietnam



60. *Process innovation:* Like for product innovation, Vietnam is in an intermediate position regarding the proportion of firms declaring that they have recently improved their processes (e.g. production method, distribution/logistics, maintenance, procurement, accounting) (Figure 19). The data also suggests that process innovation in Vietnam entails the automation of manual tasks and the introduction of new technologies or production method similar to comparator countries (Figure 20). Finally, Vietnam is also in an intermediate position compared to other countries for the rate of innovation concerning firms’ organizational structures and management practices.

Figure 19. Process Innovation

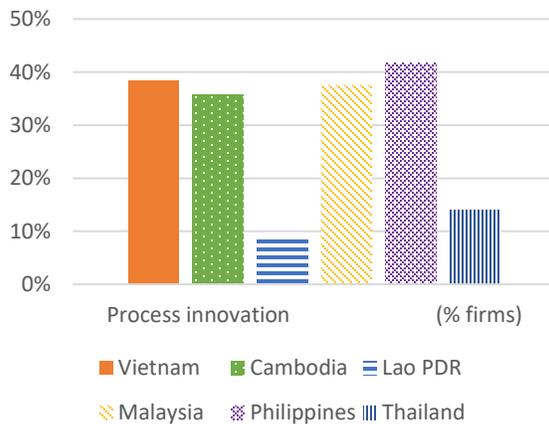
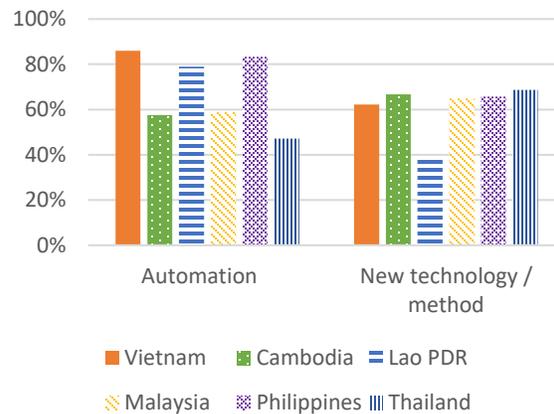


Figure 20. Function of New Process



61. *Innovation inputs:* In order to complement the perception data presented, it is useful to look at more objective measures of firms’ investments for innovation. For instance, a question asking firms whether they had spent on formal R&D over the last three years, either in house or contracted to external institutions, suggests that a relatively large proportion of Vietnamese firms do so compared to other countries in the region (Figure 21). The same evidence suggests that the average R&D effort in monetary terms (1.6 percent of annual sales) is lower than in Lao PDR (14.5 percent), the Philippines (3.6 percent), Malaysia (2.6 percent) and Cambodia (1.9 percent). Within Vietnam, 26 percent of medium and large firms declare spending on R&D, compared to only 9 percent of small firms. Around 20 percent of Vietnamese firms

declare providing training to their employee for the development and/or introduction of new products or processes, more than in Lao PDR, Malaysia and Thailand but less than in the Philippines and Cambodia (Figure 22). The same figure shows that, compared to other countries in the region, relatively few Vietnamese firms appear to be spending on the purchase or licensing of inventions and knowledge for the development of new products and processes.

Figure 21. R&D Spending

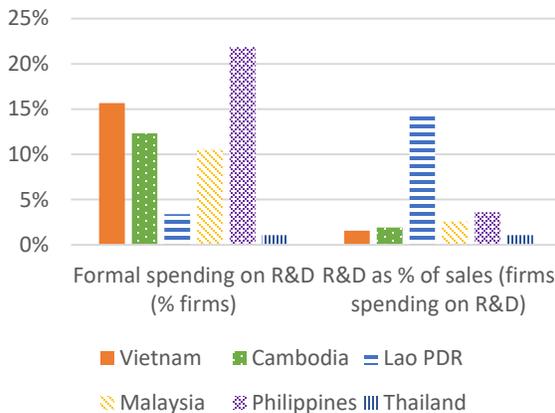
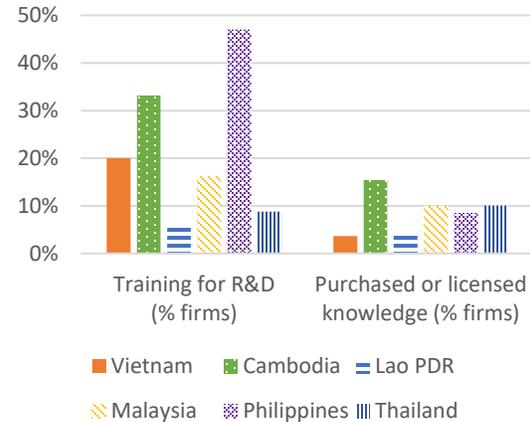


Figure 22. R&D-related Training and Licenses



62. **Econometric analysis, using logistic regression, confirms that certain firm characteristics increase the odds for a specific firm to undertake product innovation in Vietnam.**³⁹ The main results are as follows:

- *Sector:* While firms in retail services are not less likely than manufacturing firms to report product innovation, those in other services sectors are. This is suggestive of a weakness of services sectors in Vietnam, confirming the findings of previous studies.
- *Region:* Compared to firms in the Red River Delta, firms in the South East and even more so in the Mekong River Delta are also less likely to report product innovation.
- *Size:* As opposed to small firms, being a medium or large firms increases the odds of introducing new or significantly improved products by a factor of more than 3.5.
- *Ownership:* Results also suggests that, compared to domestic firms, joint ventures innovate more and wholly owned foreign firms innovate less. This could be due to the fact that innovative activity is undertaken at the head offices of these foreign firms that are based outside Vietnam and thus not captured in the data.
- *R&D and training:* Unsurprisingly, spending on R&D and providing formal training to employees increase the odds of product innovation by factors of 5.4 and 2.7, respectively. In line with this, the new SME law has laid out specific support for SMEs to access training for product development, intellectual property and implementation of procedures on quality and measurement standards. In addition, the Law also lays out support for SME to commercialize scientific research and the development of

³⁹ The regressions use as dependent variable a dummy equal to 1 if a firm declared having introduced new or significantly improved products over the last three years and zero if otherwise. Coefficients are presented as odds ratios. See annex 2.1. for the full set of regressions.

intellectual property. The Law also proposes an innovative start up investment fund formed by investor’s capital contribution with a view to invest in innovative start-ups.

63. All these coefficients are highly significant at the 1 percent level, except for those related to joint ventures (10 percent) and wholly foreign owned firms (5 percent). Factors such as being an exporter, being managed by a woman and having a credit line at a financial institution are associated with higher odds of innovation but the results are not significant.

Constraints to backward linkages

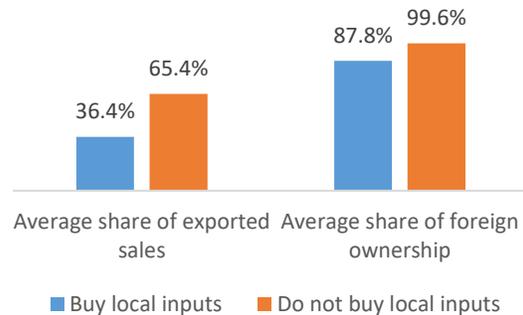
64. This section provides a basic analysis of backward linkages using Enterprise Survey data, both from the demand side (foreign-owned customers) and from the supply side (domestic suppliers). Results notably suggest that some types of FDI (e.g. market seeking, joint ventures) have a higher potential for linkages, confirming findings from similar analysis elsewhere, and that issues such as the focus on quality, access to foreign inputs, the provision of training to workers, innovation efforts and use of ICT may be related to firms’ capacity to develop backward linkages with FDI. They also suggest that companies managed by women face additional obstacles to establish linkages and may need targeted support.

65. *Demand side:* The proportion of firms with foreign ownership using domestically produced inputs appears to be significantly lower in Vietnam than in comparator countries – while a vast majority of FDI firms in China, Malaysia and Thailand source some inputs locally, this is only the case for about two thirds of them in Vietnam (Figure 23). Moreover, the propensity for FDI firms to buy local inputs appears to be negatively linked with the share of direct exports in their sales and the share of foreign ownership in their capital (Figure 24). This would confirm previous finding that market-seeking FDI and joint ventures are more likely to establish backward linkages.

Figure 23. Proportion of Foreign-owned Firms Using Domestic Inputs



Figure 24. Local Input Sourcing, Exports and Foreign Ownership



66. *Supply side:* Differences between domestic firms which managed to establish FDI backward linkages and those which did not can inform the design of programs aiming to further develop those linkages. This is attempted here, using the Enterprise Survey’s measure of indirect

exports⁴⁰. Several constraints and weaknesses of the domestic private sector discussed earlier are looked at, including the quality of products, access to finance, innovation, skills, etc. Finally, the main business environment constraints perceived by firms are presented, distinguishing between linked and non-linked firms.

67. *Quality*: The lack of competitive potential suppliers able to conform to MNEs’ quality, price and reliability standards has been identified as one of the major constraints backward to linkages in Vietnam (World Bank and MPI 2016). The latest Enterprise Survey data show that, while half of foreign-invested firms hold an internationally-recognized quality certification, such as ISO 9001 on quality management systems, less than 10 percent of domestic firms do. However, this proportion increases to almost a quarter for domestic “linked” firms (Figure 25). To the extent that imported inputs have a higher quality/price ratio or embody better technology than domestic ones, linked domestic firms’ heavier reliance than non-linked firms on such imported inputs, in Vietnam like in comparator countries, may also be a source of higher competitiveness (Figure 26).

Figure 25. Use of Quality Certification

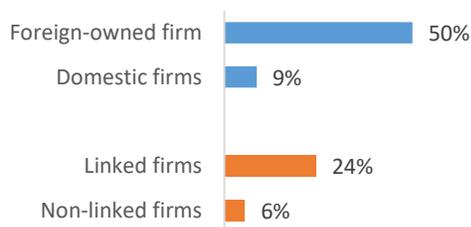


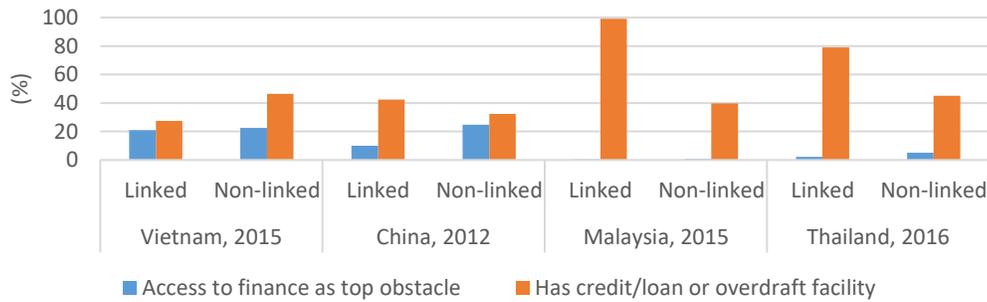
Figure 26. Proportion of Imported Inputs



68. *Access to finance*: Access to finance is perceived as one of the top business constraints by firms surveyed in Vietnam, with a significantly higher proportion of firms declaring it as their main constraint than in Malaysia, Thailand and China (Figure 27). However, the fact that there is no large difference between linked and non-linked firms, as well as that the proportion of non-linked firms having a credit/loan or overdraft facility is higher in Vietnam than in comparator countries, suggests lack of access to finance may not be a major obstacle for firms to establish linkages.

⁴⁰ This question asks surveyed firms to indicate the proportion of their sales “sold domestically to third party that exports products”. Given the dominant share of foreign-owned firms in Vietnam’s exports, this can arguably be considered a relevant, if imperfect, proxy for backward FDI linkages. ‘Linked’ domestic firms are thus defined as those exporting indirectly at least of 1 percent of their output, and ‘non-linked’ firms are those who sell their whole output domestically. Based on the latest Enterprise Survey for each country, the share of linked firms in Vietnam (5.1 percent) is lower than in China (12.5 percent) and Malaysia (8.7 percent), but it is higher than in Thailand (0.3 percent). Dimensions discussed include access to finance, skills and workforce training, and innovation.

Figure 27 2. Access to finance



69. *Skills*: Compared to non-linked firms, on average linked firms are found to (i) have a slightly higher proportion of skilled production workers, (ii) provide much more formal training to their employees, and (iii) consider that an insufficient skills and education level of the workforce is a major constraint (Figure 28). Furthermore, while no obvious pattern emerges in terms of the type of skills linked and non-linked firms say are most difficult to find, the primary focus of their training efforts does not seem to be geared towards addressing these needs (Figure 29, Figure 30). For instance, skills such as foreign languages, work ethic, writing, management and leadership are sought after but do not appear to be the object of much of the training provided by firms.

Figure 28. Skills

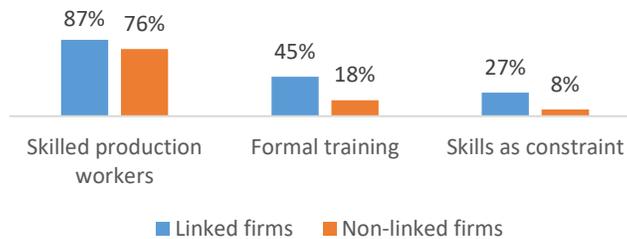


Figure 29. Proportion of firms finding it difficult to find different types of skills

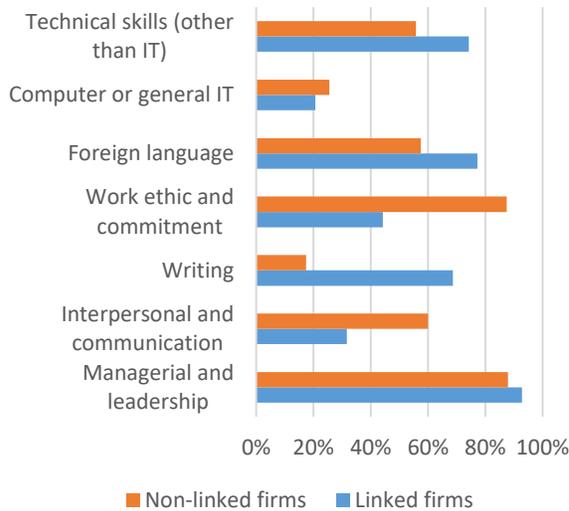
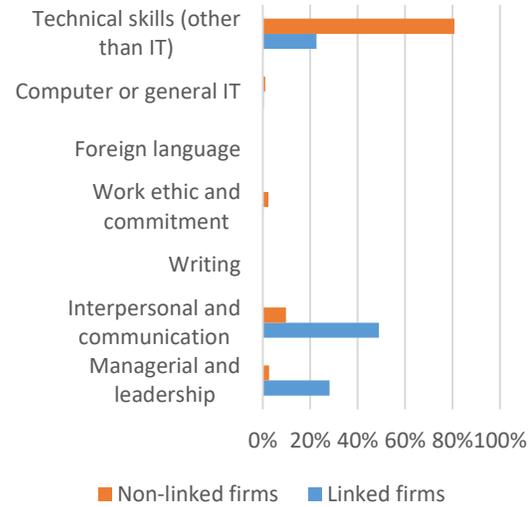


Figure 30. Primary focus of formal training programs

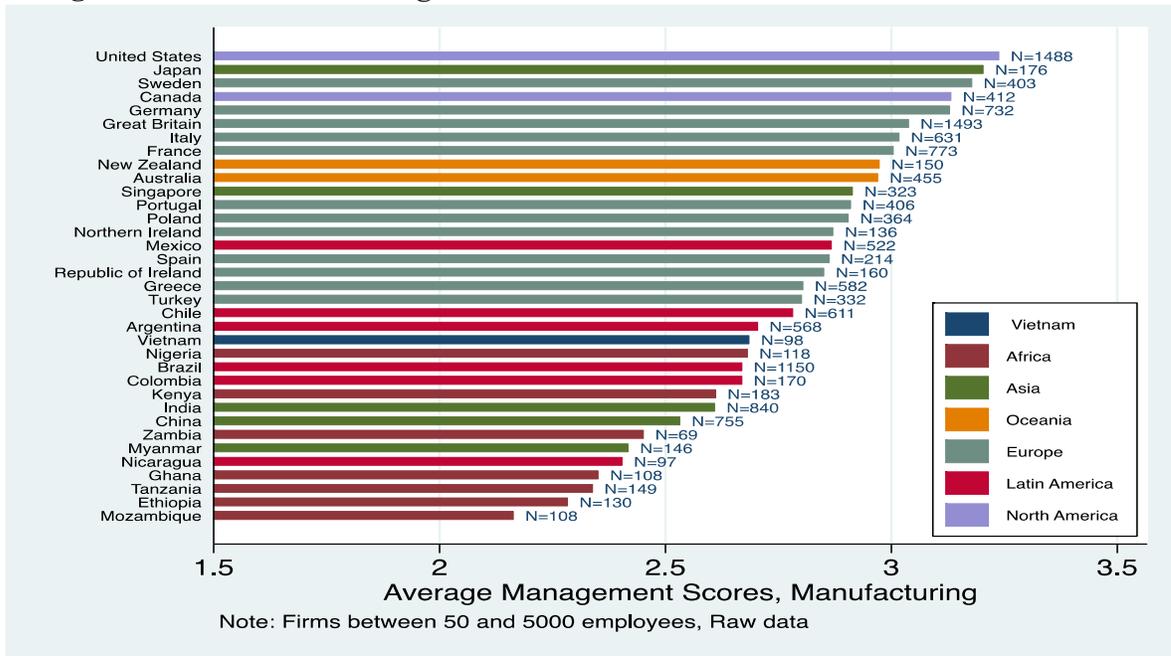


70. Firm capabilities in Vietnam need improvement to enhance competitiveness. Evidence from cross-country survey work that measures management practices systematically across firms and industries provides evidence for the view that persistent differences in productivity at the national level (and in turn at the firm-level) can be due to variations in management practices.⁴¹ Figure 31 presents a snapshot of manufacturing management scores across the globe and finds that Vietnamese management practices, on average, do not fare well compared to many countries that have been surveyed.⁴² The spread of management practices within Vietnam is also not as wide as the other Asian countries, suggesting that there is certainly room for improvement. This message is reinforced when employers in Vietnam were asked about the difficulty of finding employees across a spectrum of different skills set; managerial skills ranked at the top across firm size (Figure 29, 30).

⁴¹Bloom, N. and J. Van Reenen (2015). The World Management Survey (WMS) is a Harvard-LSE-Stanford research project that has been using a survey tool to measure management practices around the globe since 2002. The survey covers four dimensions of management practices - operations, monitoring, targets and people management. It may be noted that ES survey does not focus on firm capabilities.

⁴² Bloom, N. et al (2015) Management Practices in Vietnam, March 2015 (Draft). The World Management Survey in Vietnam was conducted from November 2014 to April 2015, covering 150 manufacturing firms which were randomly picked from the population of firms with 50 to 5000 employees. The Vietnamese firms are compared and evaluated with over 15,000 similarly selected manufacturing firms in 35 countries around the world.

Figure 31. Vietnam’s Management Scores



Source: Bloom N. et al (August 2015).

Box 1. Gender Dimension of Linkages

It appears that Vietnamese women manager face additional difficulties to establish linkages (Figure 32a). Moreover, while the limited number of observation in Enterprise Survey data makes it difficult to look at a very granular level, this difference seems to be found in most sectors (Figure 32b), and is therefore not driven by differences in sector composition in Vietnam and the other countries. While this finding would require more investigation, it could justify a specific gender focus in programs aiming to foster backward linkages.

Figure 32a. Female Top Manager

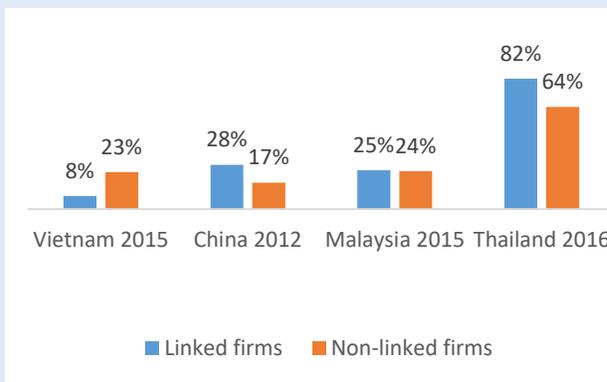
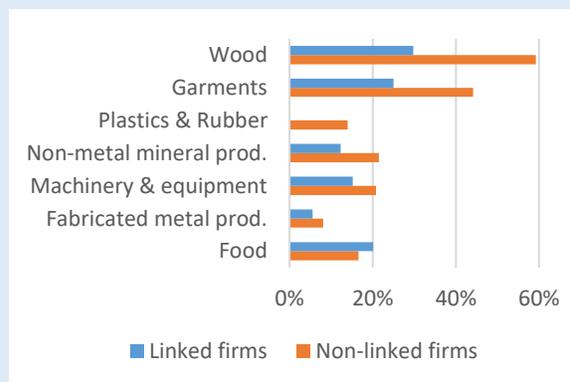


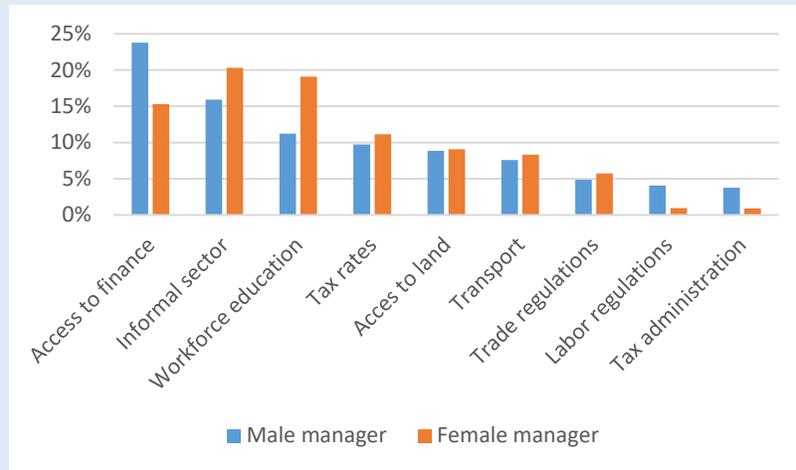
Figure 32b. Female top manager by sector in Vietnam



Moreover, Figure 33 presents a comparison of the business environment constraints perceived as being the most binding for their business between male and female-managed companies. While the rankings are generally similar, it shows that, compared to men, women managers tend to perceive access to

finance as being less constraining, but that inadequate workforce education as being more of a constraint. While the data does not allow a deeper analysis of this last point, it could be explained either by a more difficult access to skilled workers for firms managed by women, or by a higher attention paid by them to skills.

Figure 33. Gender Differences in Business Constraints



71. *Innovation*: The capacity to innovate can be one of the reasons why some domestic firms are capable of meeting foreign-owned clients’ requirements in terms of product diversity, quality and price. Alternatively, domestic firms that are linked to MNCs have a greater impetus to innovate in order to cater to globally acceptable standards sought of their products. In this regard, and subject to the caveats mentioned in section 3.2. Regarding subjective measures of innovation by firms, more than twice as many linked firms than non-linked firms declare having introduced product/process innovation and having spent on R&D during the three years preceding the survey (Figure 34). Furthermore, econometric analysis suggests that the introduction of process innovation is positively and significantly correlated with the probability of being a linked firm, controlling for firm size/age and with sector/region fixed-effects (see Annex 2.2.). Moreover, linked firms are far more likely to report that they developed their product/process innovation in cooperation with another firm or institution, while non-linked firms seem to mostly rely on their own efforts (Figure). This could be indicative of the greater need for linked firms to seek external partners in order to be able to undertake innovative activity that get higher quality results and the lack of incentives for non-linked firms to undertake truly innovative activity. This would also indicate a higher quality of innovation undertaken with external partners.

Figure 34. Innovation Capacity

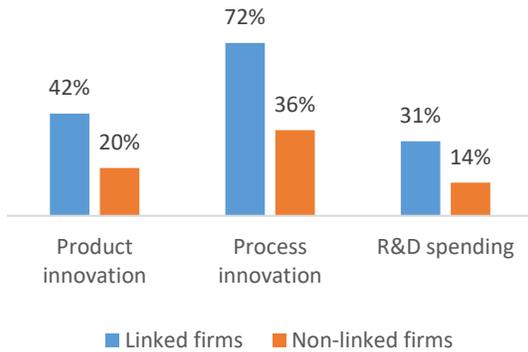
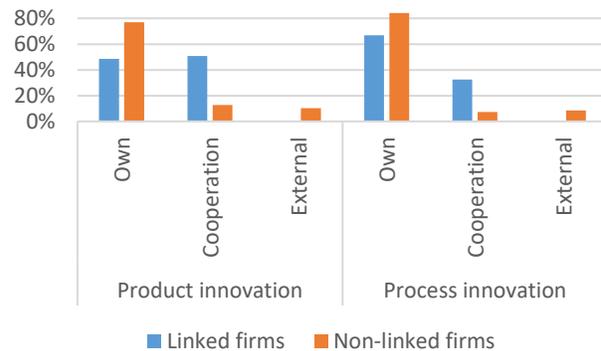


Figure 35. Source of Innovation



72. *Use of Information and Communication Technologies:* Domestic firms’ capacity to find business opportunities with foreign-owned firms can partly depend on their use of modern communication and online advertisement platforms. Using as a proxy the proportion of firms using their own website and emails to communicate with clients and suppliers, there is some evidence that linked firms tend to use these tools more, especially the development of a company website (Figure 36). This pattern is also found in other comparator countries except China.

Figure 36. Use of ICT

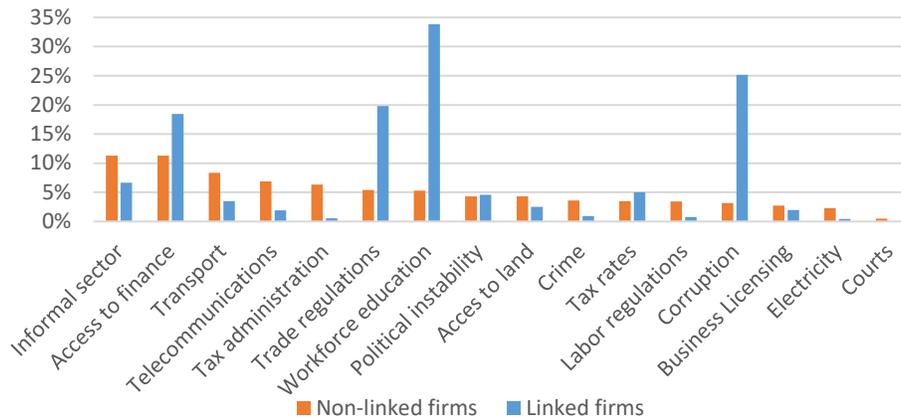


Business environment constraints

73. Although, as argued previously, perception data have limitations, it is useful to look at the business environment constraints that firms say are the main obstacles to their business. Firstly, Enterprise Surveys ask firms to rate how large a constraint is each of 17 areas of the investment climate on a five-point scale between ‘no obstacle’ and a ‘very severe obstacle’. Figure 37 shows the proportion of both linked and non-linked firms that rated each area as a ‘major’ or ‘very severe obstacle’ (jointly referred to here as serious obstacle or constraint). This shows significant differences between the two categories of firms. Non-linked firms find

the practices of the informal sector or access to transport and telecommunication services more problematic than linked firms. On the other hand, linked firms more frequently consider that inadequate education of the workforce, access to finance, trade regulations and corruption are serious constraints.

Figure 37. Business Environment Constraints Perceived as Serious Obstacles



Concluding Summary

74. **The latest enterprise survey findings highlight the importance of enhancing the competitiveness of Vietnamese firms if more linkages are to be established.** Domestic firms' productivity may not be excessively low compared to other Asian countries, although there are some indications that medium and larger companies, which are generally seen as having more potential to become suppliers for foreign-owned firms, are lagging. While Vietnamese firms do innovate, it seems this innovation appears to rarely relate to new products or technologies. Innovation also seems to rely on less investment in inputs and licensed knowledge than in some competing Asian countries, and there is scope to incentivize firms to dedicate more resources to R&D, the licensing of foreign technologies, etc. The data suggests that the innovation effort seems driven by larger firms, which could justify targeted support to help these firms innovate in a way that is more relevant for linkages, and that encouraging joint ventures could boost innovation. Finally, the analysis above confirms that programs aiming at fostering backward linkages could target market-seeking FDI and promote joint ventures, and that they should encourage the focus on product quality, access to foreign inputs, the provision of training to workers, innovation efforts and use of ICT by domestic firms.

Chapter 3: Developing Linkages through Supplier Development Programs

Lessons learnt from international experience

Introduction

75. In this chapter, the focus shifts to supply chain linkage mechanism as an important channel through which FDIs transfer technology, know-how, and management practices, help raise domestic firm productivity, as well as connect local firms to global and regional value chains.⁴³ Promoting linkages – through the development of a network of local suppliers – is the most effective way to achieve these dynamic benefits. Many governments are increasingly willing to pursue supplier development programs as is the case in Vietnam.
76. Cognizant of the window of opportunity to exploit its current position in GVCs and move the domestic industry up the value chain, the Government has established a Supporting Industries (SI) framework. Many countries in the region and globally have trodden this path, and thus Vietnam can learn from their experience as it moves towards implementing the program. Empirical evidence has shown that developing linkages between MNEs/lead firms and domestic suppliers is not an automatic process as various supply-side constraints and market failures can deter the establishment of supply chains.⁴⁴ Undertaking a clear analysis of these constraints in Vietnam is thus an essential starting point to justify development of an appropriate set of policy responses and instruments.⁴⁵
77. This chapter is structured as follows. The first section lays out the framework for understanding the linkage process, the key players and the dynamic relationships to pinpoint bottlenecks. We then apply this framework to examine Vietnam's experience to-date with linkages in section two. Focusing on the electronics sector and the automotive sector, the constraints that hold back foreign/lead firms as “buyers” and domestic firms as “sellers” (i.e. suppliers) from making the successful connection are examined in the third section. In the last section, the chapter draws on the experience of 4 different set of countries – Czech Republic, Malaysia, Chile and Costa Rica – that implemented linkages programs to examine the policies, instruments and institutional arrangements deployed to address similar constraints and challenges. The objective is to identify common elements of design and implementation in each program, and shed light on what works and what does not in different settings. These

⁴³ Primarily through the creation of backward and forward linkages. Supply chains are vertical inter-sectoral linkages which can be further categorized as either “downstream” (forward) or “upstream” (backward) linkages.

⁴⁴ Not all constraints arise from market failures; firms may also face constraints due to governance, institutional and capacity issues. These are discussed later in the chapter.

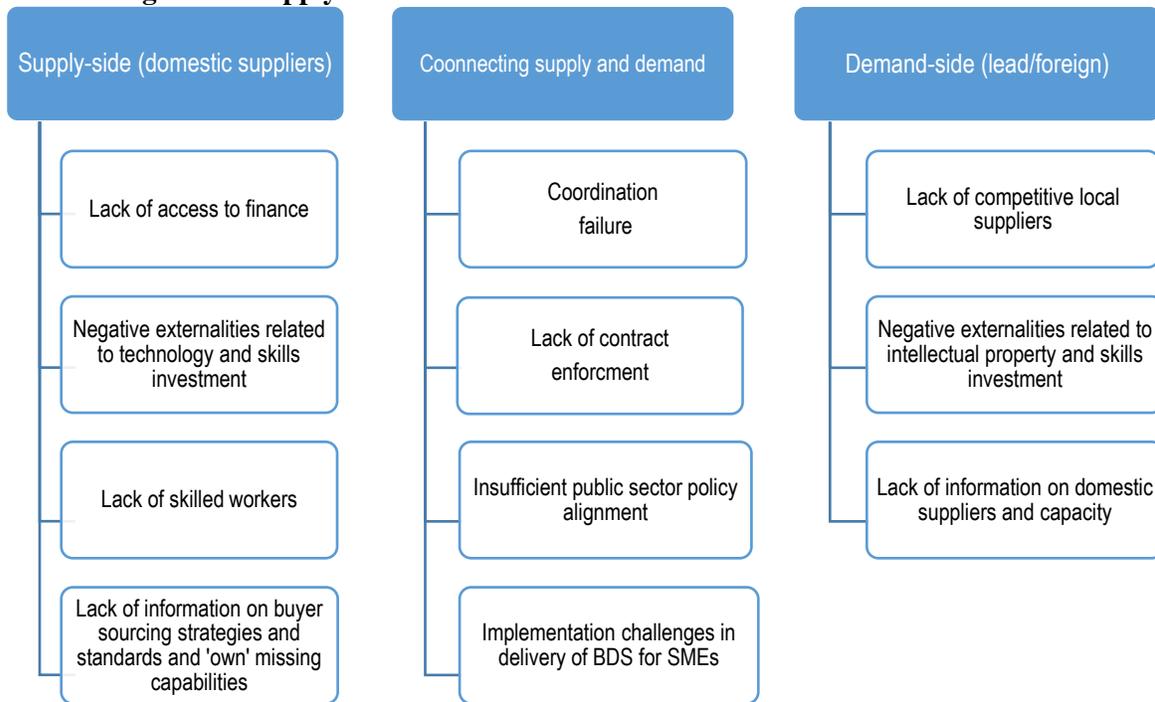
⁴⁵ For example, the source of underinvestment in technology upgradation (i.e., positive externalities or asymmetric information) determines an appropriate policy response, such as subsidized finance to compensate firms for the external benefits provided to other firms or technical assistance on improving information access. Similarly, if the root cause proves to be weak capabilities, then assistance to build firm capabilities will likely be the optimal response.

insights can be useful for Vietnam as it focuses on the operationalization of its linkage program, within the context of the country constraints.

Conceptual Linkage process

78. **The linkage process is governed by the economic relationship between MNEs/lead firms as the buyers, and domestic firms as the suppliers along a given supply chain.** In an era of GVCs where MNEs compete in international markets, their survival depends on world-class levels of efficiency and productivity. Therefore, they need to source their inputs from equally competitive suppliers. MNEs are generally keen to source locally if a competitive local supplier can be found. However, they are also reluctant to absorb high search-and-find costs, and they will typically not invest in assisting local suppliers (who tend to be 3rd tier) with upgrading efforts.⁴⁶ Likewise local firms are generally keen to supply to MNEs, but are often not keen to make the necessary investments in technology and in processes to meet the

Figure 38. Supply-side and Demand-side Constraints and Market Failures



exacting quality standards without potential pay-off for such investment. In reality, market failures as well as domestic firms' constraints deter this linkage process. While there is a role for government policy to help de-risk this process for both the MNE and the local supplier, through overcoming multiple obstacles, there may also be institutional and government

⁴⁶ MNEs in efficiency seeking FDI particularly invest in "close family" suppliers only (Tier 1).

failures that hinder the linkage process. Figure 38 lays out the three buckets of market failures and constraints that may deter supply chain linkages.

79. ***Demand side or buyers' constraints:*** Foreign investors, with potential for spillovers to host country, may face multiple obstacles and market failures as they attempt to link with domestic suppliers. These include incomplete markets related to the lack of competitive local suppliers; negative externalities related to lack of intellectual property rights (IPR) and possible poaching of productive suppliers; and lack of information on domestic suppliers and their capacity. Lack of competitive local suppliers in the country means that foreign firms will look elsewhere and link with other firms which can provide consistent (in terms of quality, quantity, and price) and timely inputs⁴⁷ needed to finalize production. A commercial risk that may limit the willingness of MNEs to collaborate with local enterprises are issues related to IPRs. The costs of the negative externalities (or spillovers) are larger especially in an environment where lack of or weak enforcement of IPR hinder foreign firms to undertake upgrading activities that can create linkages with the domestic economy. Externalities related to skills training to support domestic firms' capabilities provide another rationale for why MNEs may under-invest in skills training or related skills activities. To illustrate, MNEs' training of local suppliers' employees may lead to poaching by other competing domestic firms which will benefit from the newly trained worker. Local suppliers can also be poached by competing FDIs in the form of new contracts. Poaching risk in regards to training provision applies to both MNEs and suppliers providing training to employees for the purposes of managerial and technical upskilling. Finally, lack of formal and informal channels to obtain information on domestic supplier and their capacity results to high search costs for buyers, weakening linkage opportunities.
80. ***Supply-side or seller constraints:*** From the perspective of domestic firms (suppliers), possible constraints hindering linkages include incomplete capital markets (lack of access to finance); externalities related to technological adoption, innovation, and skills upgrading (and subsequent poaching risks); incomplete labor markets (lack of skilled workers); and information failure related to lack of information on buyer sourcing strategies and standards. Access to finance represents one of the most pressing issues for suppliers and SMEs which are trying to invest in required technological capacity, skills and international quality standards to upgrade their production to become more competitive domestically and abroad. Supplier companies invest in general training if the trained workers stay with a positive probability in the training firm. The risk of poaching however discourages local supplying firms to train their employees as they are afraid of losing money by training workers who might eventually leave. Lack of availability of skilled workers' further compounds linkage opportunities, as skillsets are more often than not a requirement by MNEs. Information asymmetry on buyer requirements, which buyers to contact, as well as firms' lack of a clear idea on 'own' domestic capabilities that are needed to link with MNEs, leads to high search costs for suppliers.

⁴⁷ The need for consistent and timely inputs is also a function of good infrastructure conditions, strong property rights, and reliable borders. (World Bank, 'Making GVCs work for Development', p.13)

81. **Connecting supply and demand:** Institutional and/or government failures may hinder linkages even though both buyers and suppliers may be willing to partner with each other. Underlying most of these failures is the existence of coordination failures. For instance, there can be lack of ‘matching’ between MNE/lead firm and domestic firms or lack of cooperation between firms, BDS, and knowledge providers. Inadequate policy enforcement may also make it difficult to monitor the performance of the supplier by the MNE. This can thus impair the cooperation in upgrading of skills and technology, for example. There may likewise be institutional failures where weak capacity of the public sector may result in poor policy design of BDS programs that may effectively fail to address the constraints that firms face and/or result to poor delivery/implementation of BDS.⁴⁸
82. Identifying the binding constraints and market failures in different country and investment contexts is thus critical to the mix of policies and programs that are selected. In the next section, we apply this conceptual framework to Vietnam, focusing focus on electronics sector and auto sector as examples where Vietnam has attracted significant efficiency-seeking FDI.

Electronics and Automotive Sectors in Vietnam⁴⁹

83. **Electronics sector:** Flourishing since 2010, the electronics sector in Vietnam today is a major final assembly⁵⁰ hub in the ICT hardware/electronics GVC. According to the Ministry of Industry and Trade, from 2011 to 2015, the annual growth rate of the industry was 29 percent, more than triple the entire industry average of about 9 percent.⁵¹ About 80 percent of electronics/ICT hardware and over 30 percent of electronic-related products are produced for exports. These exports are being done mostly by foreign firms, leading to increased FDI inflows by high-tech firms like Intel, Samsung, and Canon. Also, most exports are concentrated in a handful of electronic product groups.⁵²
84. The industry’s impressive performance in terms of output growth and exports is largely attributed to the FDI sector. FDI promotion, through tax incentives and preferential land access, has been the main strategy in the electronics/ICT hardware sector, leading to increased FDI inflows by high-tech firms. This strategy, however, left behind the growth of the domestic firms, which have been experiencing declining labor productivity. Moreover, foreign firms

⁴⁸ For instance, absence of BDS providers targeting SMEs may undermine upgrading of firm capability. In some cases, policy support may be ineffective either due to design or delivery of the policy.

⁴⁹The analysis reported here is part of the complementary work on private sector and linkages being conducted under the ongoing IFC advisory project previously mentioned.

⁵⁰ Specialization in final assembly means that Vietnam does not have to implement the entire production stages of a good or service.

⁵¹ A recent survey by the Ministry of Trade and Industry found that imported inputs represented a 70% share of total inputs (in terms of value). 12% share is due to domestic production by multinationals, and the remaining 18% share of inputs are produced by other FDI firms in-country.

⁵²For example, 75% of exports are concentrated in communications equipment (mostly mobile handsets) and the remaining exports are in computers and storage devices (12%) and automotive electronics such as wire harnesses (6%).

rely on their own supplier base (i.e. Tier 1 suppliers) abroad for input sourcing needs. Global leader such as Samsung, for example, relies primarily on Korean intermediate input suppliers which have co-located in Vietnam, with only 4 Vietnamese suppliers out of 67 total suppliers to Samsung (i.e. 53 from Korea, 7 from Japan, 1 each from Malaysia, Singapore, and the UK). The 4 Tier 1 Vietnamese suppliers are primarily in the low value-added packaging business (i.e., paper packaging, thin-film packaging, corrugated paper packaging).⁵³

85. *Automotive sector*: The development of the automotive vehicle industry in Vietnam varies between the three most important segments: two-wheelers, passenger cars, and commercial vehicles. The two-wheeler sub-sector industry is well developed (specifically motorcycle and motorcycle parts) and Vietnam is increasingly becoming a hub for exports. Its exports have grown between 10% and 20% annually (dominated by Honda and Yamaha), boosted by a strong base of motor vehicle suppliers.⁵⁴ About 90% of the value added in this segment is domestic value added with only some of the most advanced electronic components imported from Japan or Thailand. Commercial vehicles' (buses and trucks) local content are also increasing: 30% of inputs are domestically sourced (particularly for engines, transmission systems, and gear boxes; 70% of inputs for the electrical parts of the vehicle, and all of truck frames and trunks are produced domestically.⁵⁵ The passenger car sub-sector however does not enjoy the healthy performance of the motorcycle sub-sector or the commercial vehicle sub-sector, as there is heavy reliance on import content (although some simple and labor-intensive parts like car seats are produced domestically) especially for the more sophisticated parts: engines and gear boxes are often imported from branches of parent companies or from foreign suppliers. Local content use is in the range of 10%-20% only, compared to Thailand's 45%.⁵⁶ Value added is gained at the low value-added stages, including assembly, welding and painting. Also, domestic firms contribute to low value-added and labor-intensive parts like tires, batteries and wire harnesses (of which wire harness production has developed significantly but not for other auto parts). To date, some important multinational Tier 1 suppliers include Denso, Yazaki, Robert Bosch, and SEWS. Overall, there are about 200-300 auto part manufacture enterprises, most of which are SMEs with low production capacity and low technology.

⁵³ Source: MoIT, 2016. Based on the May stakeholder workshop in Hanoi, the team was informed that the number of local suppliers have increased further in the last six months.

⁵⁴ These suppliers produce motorcycle parts such as wire harness, tires, ignition switches, and clutches (with a few more advanced inputs imported from Japan or Thailand).

⁵⁵ In comparison, local parts used in the dominant light pickup industry in Thailand averaged 80% of the total, with passenger cars managing 45% and motorcycles 90%. Without a major parts industry, car production costs are higher than elsewhere in the region because of taxes on imported components.

⁵⁶ There is also low demand for passenger cars in Vietnam, thus resulting in a small local market (dis-incentivizing development of local industry parts). This is so despite that local industry protection is available through import taxes for imported vehicles (new and used); these import tariffs will however be phased out across the ASEAN by 2018.

Supply-side Constraints

86. Evidence of obstacles faced by Vietnamese firms in the focus sectors indicate that lack of skilled workers and lack of information on FDI sourcing strategies and standards are the binding constraints for domestic suppliers.
87. **Lack of skills:** Domestic SMEs (during qualitative interviews) acknowledge that the lack of workforce skills is hindering SMEs to link and secure business with FDIs. This constraint cuts across sectors, although there are particular skillsets demanded for by particular sectors. In the ICT software and services sector, complaints relate to lack of workers with skills related to foreign language, management, and technical skills. Across manufacturing sectors, Vietnamese firms also suffer from lack of management skills: Vietnamese management scores ranked quite low when compared to other surveyed countries such as Mexico and Chile.⁵⁷ Lack of management skills also topped the list of skills when ES-surveyed firms were asked about what skills are difficult to find (compared to other skillsets like IT, non-IT, writing, and interpersonal skills).⁵⁸
88. Successful domestic suppliers' experience in the electronics/ICT hardware and auto sectors also indicate that lack of skilled workers is a hurdle that needs to be 'bypassed' through skills transfer from similar-tier or upper-tier FDI suppliers. Some of the demanded skillsets include production management and machinery operations. (see Case Study box)
89. There are several reasons explaining the lack of skilled workforce. For one, this can be traced back to the governance structure of foreign lead firms (especially OEMs), which are often based abroad and perform high value-added activities overseas. This 'dis-connection' with the domestic economy leads to a lack of 'learning-by-doing' on the part of domestic firms, although there can be successful experiences of skills learning between SMEs and FDIs. Another is that the local education system is not able to keep up with the demands of a fast-paced business environment. For example, Japanese language skills is a sought-after skillset especially as Vietnam has recently become the top-two biggest software services exporter to Japan.⁵⁹
90. **Lack of information:** Without formal information channels to obtain information on FDI sourcing strategies, potential domestic suppliers with no business connections are disadvantaged in terms of linkage opportunities. Moreover, domestic firms may have limited direct interaction with global buyers especially if lead firms (especially OEMs) coordinate from headquarter locations outside Vietnam. Domestic firms may sell indirectly to global buyers (or brands) through buying houses or agents (e.g., apparel sector), and this hinders direct information gathering on the demands of global buyers and acquisition of experience and skills such as sales and marketing. This is further compounded by the fact that there can

⁵⁷ Bloom, N. et al (2015) Management Practices in Vietnam, March 2015 (Draft).

⁵⁸ World Bank Enterprise Survey for Vietnam, 2015.

⁵⁹ World Bank, 'Inclusive GVCs', p. 49.

be a ‘relational’ governance structure in the GVC, which rely on informal networks formed over time. This makes it difficult for un-connected domestic firms to penetrate the GVC without joining a nominated or connected supplier or getting referrals. The experience of some successful domestic suppliers suggests the importance of using informal networks to gain information on how to participate in GVCs. Informal referral measures serve to ‘bypass’ the constraint of lack of market-based formal information on FDI sourcing strategies. Interviews with successful domestic suppliers’ executives also indicate that to date, they are not aware of official information channels on obtaining MNC procurement opportunities and thus still rely on informal personal ties (see Case Study box).

91. Further, lack of information on standards on the part of suppliers weakens linkages opportunities given that upper-tier suppliers and their suppliers are required to follow lead firms’ quality management processes. Interviews with first-tier suppliers in the auto sector indicate that there is a large perception gap on quality, cost, and delivery (QCD) standards requirements between local firms and MNCs despite that meeting QCD is a common selection criteria required from suppliers. For example, Japanese auto parts buyers find that ‘stability’ in quality management and a culture of ‘constant improvement’ are non-questionable necessities although both perceptions are not often followed religiously by local firms, thereby leading to fewer orders.
92. Overall, there is some evidence that lack of information is a constraint for suppliers in the focus sectors. Nonetheless, there are government efforts as well as private sector efforts to address information asymmetry on FDIs and their sourcing strategies and standards, such as in the form of database development and implementation of trade fairs (refer to *Chapter 4*). Other supply-side constraints do not appear to be binding across firms but variations arise when they are examined by sectors and firm life cycle stage.
93. ***Lack of access to finance:*** While this seems to be a binding sectoral concern for nascent firms in the ICT (hardware/electronics and software sectors) sector, this is not necessarily true for domestic firms on average (refer to *Chapter 2*). Focus group interviews with firms in the ICT sector indicate that one of the key constraints that hinder start-up and scale-up include lack of access to reliable risk capital, although there are a handful of limited internationally-connected venture capital firms that start-ups and SMEs can tap into.
94. Financial access nonetheless maybe more restrictive although not necessarily binding for firms aiming to be a domestic supplier but are not able to do so. Successful local suppliers’ experiences (e.g., Thanh Long in the electronics sector and Tam Hop in the auto sector) show that financial access concerns ease after linkages with reputable MNCs happen, such as in the form of lower cost of finance and easier access to more loans. (see Case Study box)
95. ***Externalities:*** Case studies of successful lower tier suppliers in the electronics and auto sectors suggest that externalities concern is not likely a supplier’s constraint. Successful experience shows suppliers’ willingness to follow (or ‘copy’) management system measures

implemented by other foreign manufacturers, for example. Implementation of these innovative systems actually resulted to substantial gains, such as in the form of increasing the number of customers these suppliers supply to, as well as moving up the supply chain tiers. (see case Study box)

Demand-side Constraints

96. Demand opportunities (and challenges) for increased GVC linkages in target value chains include the following:

- Increasing numbers of MNE OEMs (original equipment manufacturers) and Tier 1 suppliers are operating in Vietnam. Feedback from MNEs and Tier 1 suppliers pointed to an overall desire to increase localization, including access to internationally-competitive suppliers based in Vietnam. The latter has implications for access to information on suppliers as well as the 2nd generation FDI strategy.
- Most MNEs and foreign Tier 1 firms met were actively looking to increase local sourcing, but had limited success due to few competitive local suppliers capable of meeting international standards. All such companies were initially looking to source simple metal/mechanical, plastic and electronic parts, molds and tools as well as packaging. This means opportunities to work with MNEs are predominantly at Tier 2-3 levels. Examples of inputs demanded by the electronics sector include the following:

Box 2. MNC –demanded Components

MNC	Component
Canon Vietnam Co. Ltd (CVN)	Precision polymer components
	Tape, Foam, Stretch Film
	Roller
	DC & Brushless motor
	PCB & PCBA
	Thermistor, USB cable, Connector
Intel Vietnam	Substrates, Chip capacitors
	Flux & Underfill
	Transistor balls and chemicals to solder such balls
	Electric, electronic and mechanic components and accessories
	Materials for transportation
	Materials for packaging
	Materials for manufacturing
	Handheld equipment and accessories
	Chemicals, software
Cleanroom outfit; cleanroom furniture	

	Maintenance for the cleanroom machines and equipment
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Source: MOIT 2016

97. ***Lack of competitive local suppliers:*** Evidence suggests that lack of competitive local suppliers who can meet quality standards in GVCs is the first-order binding constraint that MNEs/lead firms in the ICT/electronics and automotive sectors currently face. Lack of competitive local suppliers in the country means that foreign firms will look elsewhere and link with other firms which can provide consistent (in terms of quality, quantity, and price) and timely inputs⁶⁰ needed to finalize production. This is so because lead firms want to minimize supply risks⁶¹ and meet production targets. In the ICT sector, foreign investors primarily complain about the lack of domestic suppliers who can meet the required standards demanded by these firms. For example, Samsung Vietnam found that among 200 domestic suppliers who expressed interest to supply to Samsung, which had planned to source 91 parts for Samsung Galaxy S4 and 53 parts for tablets (involving batteries, earphones, USB storage devices, data transmission cables, etc.), none can meet the requirements set forth in the electronics GVC.
98. For the automotive sector, lack of competitive domestic suppliers result to heavy reliance of foreign content from overseas factories which produces in large volumes. Heavy import reliance also translates to excess capacity in the sector (i.e., estimates show that mean capacity use for assembly in this sector is only around 40%). Domestic auto part manufacturers primarily lack quality to meet international standards due to its size—firms are mostly small, informal, and fragmented, and thus do not have economies of scale to produce quality inputs that meet standards set by lead firms.
99. A survey conducted by Supporting Industry Enterprise Development Center (SIDEK) in October 2014 revealed that even for firms which are currently part of the supporting industry, few firms use up-to-date technology or technology which meets high technical standards set up by MNEs. Firms manufacturing metal components commonly use either Japanese machinery that were produced a decade ago (although still able to manufacture standard components) or Chinese/Taiwanese machinery (which are cheaper but have lower accuracy and quality). The survey also found that domestic firms manufacturing electronic components often have inadequate technology (such as a clean room system). Moreover, while about 65% of surveyed firms adopted quality management standards (ISO 9000 and ISO 9001) and management systems (e.g., 5S and Kaizen), only a limited number of domestic firms are qualified for higher standards, such as on environmental management (ISO 14000), occupational safety and health management (OHSAS 18001), corporate social responsibility (SA 8000), and higher order management methods (e.g., Lean, 6 Sigma).⁶²

⁶⁰ The need for consistent and timely inputs is also a function of good infrastructure conditions, strong property rights, and reliable borders. (World Bank, ‘Making GVCs work for Development’, p.13)

⁶¹ World Bank, ‘Making GVCs work for Development’, p. 156.

⁶² MOIT, 2016 p.30-32.

100. A supply capability assessment conducted on 14 Vietnamese suppliers currently supplying to the auto sector (and related manufacturing sectors) and potentially for Samsung Vietnam showed that 3 suppliers received a grade A (good quality) result. 3 suppliers were also rated B (average quality but have potential to improve production chain) and the majority (8 suppliers) were rate C (low quality). These suppliers were assessed on the following measures: input storage management, final product storage management, input control, product control and prevention, meter adjustment, internal management of error rate, among others. Results suggest that majority of these suppliers are not capable to be immediate suppliers to Samsung Vietnam. Moreover, even for those with grade A results, firms are recommended to invest in clean room and storage control measures (e.g., thermal and humid control) to meet Samsung Vietnam requirements.⁶³
101. Nonetheless, as interviews with firms in Vietnam suggest, there remains keen interest on the part of lead firms and first-tier suppliers in the automotive and electronic sectors to access globally-competitive local suppliers. Other demand-side constraints appear to be non-binding and may not call for immediate remedy.
102. **Externalities:** Externalities concern related to innovation may not be a concern for FDIs such as Intel and Samsung given that most if not all of their innovation and higher value added activities are generated overseas. Moreover, the IPR protection concern is more likely due to ‘lack of enforcement’ (a public-sector constraint). There is an IPR law that exists on paper; however, it is poorly implemented and enforced. There are also other tangible private investments on innovation, such as a new applied research industry in Ho Chi Minh City and Da Nang that engage in R&D activities.
103. Also, successful domestic supplier experience illustrates that potential negative externalities do not hinder buyer investments in developing potential supplier capabilities. Some of the support provided by FDI-lead firms to these successful domestic suppliers include referrals to a Tier 1 FDI supplier (which provided the hand-holding support for domestic suppliers). Specific support includes knowledge exchange (sending expatriate experts to work in domestic firms) and learning tours for domestic employees at FDI-suppliers’ plants. (see Case Study box)
104. **Lack of information on domestic suppliers (and their capacities):** This is a constraint only if lead firms (FDIs) are looking for this information and could not find them. This is however unlikely given the thick and strong ties involved in the governance structure of supply chains, such as in the automotive and ICT hardware/electronics sectors. Lead firms co-exist with their strong and existing supplier network. Thus, to be able to be noticed by lead firms, binding constraints such as lack of quality inputs produced by domestic SMEs have to be first addressed. In theory also, the market power and available coordination mechanisms

⁶³ MOIT, 2016, P.36-40.

existing in lead firms make it easy for lead firms to gather information about potential input suppliers.

105. Moreover, there are efforts by lead firms to gain more information on potential suppliers. For example, in an effort to grow its domestic supply base, Samsung organized workshops with domestic SMEs (suppliers) in order to (i) train suppliers on components the company wanted to locally source and (ii) get to know these suppliers (and the quality of their inputs).⁶⁴

⁶⁴ World Bank, 'Inclusive GVCs', p.35.

Case Study Box. Successful Domestic Suppliers: How firms ‘bypass’ constraints⁶⁵

Background Summary: A review of successful linkage cases find that there are few examples of successful domestic companies that have integrated into the GVCs. Nonetheless, these two successful Vietnamese firms showed that they were able to address supply-side constraints through the support of FDI-Tier 1 suppliers, as well as technical assistances from development partners and governmental organizations. The linkage process took quite a long time and involves trial-and-error, and the journey can start from being a Tier 3 supplier in a sophisticated industry (e.g., electronics) or first being a supplier to an industry that has less strict standards requirements (e.g., sewing machine). Overall, this Case Study box indicates the importance of private sector bottom-up approaches in achieving the linkage objective.

Electronics sector: Thanh Long Electronics Production Company

Background

Thanh Long started as Jaguar Vietnam’s (Japanese mini sewing machine manufacturer) supplier and produced printed circuit boards (PCB) and transformers for the MNC. The company eventually became a supplier to RFTech Vietnam, Samsung Vietnam’s 1st-tier supplier (Thanh Long effectively became Samsung Vietnam’s 2nd-tier supplier) within 4 years of its inception. To date, Thanh Long is a 1st-tier PCB supplier to Canon Vietnam and a direct PCB exporter to Germany. It is also on its way to become the first domestic 1st-tier electronics supplier to Samsung Vietnam itself.

How it addressed constraints

Capital Investments: Achieving its first linkage opportunity meant that the company has to first invest in technology and follow (or ‘copy’) management system measures implemented by other foreign manufacturers. These include following the 5S management system (Sort, Straighten, Shine, Standardize, and Sustain) and the Kaizen management systems, where both production processes follow strict performance measures.

Lack of access to finance: This does not seem to be a binding issue for Thanh Long as it historically borrowed from 2 private sector banks (BIDV and Vietcombank). The company however started to receive a more favorable interest rate for its US-denominated loans after it started exporting inputs to Germany.

Lack of information on FDIs: The company started to produce for a less sophisticated non-electronic MNC, gaining information in the process, improved on its management systems overtime, prior to being able to gain information and link with more sophisticated electronic MNCs. The company also received technical assistance support from JICA and SIDEC to participate in European trade fairs, thereby increasing their information of FDI-buyer demands.

Lack of skills: This is achieved through skills transfer from similar-tier or upper-tier FDI suppliers. RFTech introduced its Korean PCB supplier (Wonkyung Electronics Co., Ltd) to Thanh Long. Thanh Long and Wonkyung implemented profit-sharing agreements in exchange for supporting Thanh Long to produce PCB (at a comparable quality but lower costs than imported PCB). Wonkyung’s support include sending two Korean experts to work in Thanh Long’s plant (for a year) and implementing a learning tour for Thanh Long engineers in its Korean and Chinese plants to learn about PCB production processes, machine operations, and production management. In supporting Thanh Long’s goal to become a 1st-tier supplier, Samsung also provided technical assistance to Thanh Long in the form of sending 2 experts (for a period of 3 months) to help the company meet Samsung’s requirements in the hi-tech household appliances product line.

Automotive sector: Tam Hop Company

Background

Tam Hop Company started as a second-tier metal auto parts supplier for Toyota and specifically supplied to Toyota Boshoku (a 1st-tier supplier to Toyota). Initially producing labor-intensive spare tire hangers, it eventually diversified to more sophisticated metal and plastic parts used in vehicle seat production. It also expanded its customer base through Toyota Boshoku’s direct referrals and reputation gained in supplying to Toyota Boshoku (such as Kyoei Yamaha and as a direct supplier to Toyota Boshoku’s Australia and Japan locations), although a substantial percentage (50%) of its output to date is still captured by a single customer. It obtained ISO-9001 (quality management system standard), about 10 years after becoming a supplier. It is also making efforts to achieve Toyota’s target standard for cost reduction (3-5% annually), although its current annual cost reduction record is about 1-2%.

How it addressed constraints

Access to finance: The company does not seem to have binding financial constraints as it has built a relationship with Vietinbank overtime, making it easier for Tam Hop to obtain loans. However, Tam Hop reported easier financial access after it started to supply to Toyota Boshoku, a reputable MNC.

Lack of information on FDI sourcing: Starting out as a small firm without membership to any business associations, Tam Hop’s linkage experience first came about through informal network (personal ties). In fact, when Toyota Boshoku actively looked for auto metal parts suppliers through company visits to SOEs, one of the executives of these SOEs linked Toyota Boshoku to Tam Hop’s director (a personal friend of the SOE executive). Its product diversification experience was made possible through repeated interactions with Toyota Boshoku, as it learned about and built on standards requirements needed to produce more sophisticated inputs. Interviews with Tam Hop executives also indicates that to date, they are not aware of official information channels on obtaining MNC procurement opportunities. The company still rely on informal personal ties.

Lack of information on FDI standards: Interviews with Tam Hop indicate that mismatch in perceptions on quality management was a significant challenge that needed to be overcome—for example, Japanese buyers find that ‘stability’ in quality management is a non-question (including a culture of ‘constant improvement’) although both perceptions are not often followed religiously by local firms, thereby leading to fewer orders. Toyota Boshoku, which has an aim of finding local suppliers instead of outsourcing functional auto parts from other ASEAN countries (e.g., metal parts, leather and fabric of seat covers), attributed the amount of time needed to localize a part (i.e., 2 years) in part to a large perception gap on quality, cost, and delivery (QCD) standards requirements from local firms and MNCs despite that meeting QCD is a common selection criteria required from suppliers.

Lack of skills: Toyota Boshoku experts worked alongside Tam Hop workers to support Tam Hop in becoming a supplier to Toyota Boshoku. Part of Toyota Boshoku’s support involved training and supporting Tam Hop acquisition of second-hand Japanese auto machines to improve Tam Hop’s technological capability (through consultation and introduction to Japanese manufacturers). Another support involved hands-on guidance from Toyota Boshoku experts for Tam Hop’s middle managers on quality control and production management.

⁶⁵ The case study on *Thanh Long Electronics Production Company* has been prepared by Truong Chi Binh, and the *Tam Hop Company* in the auto sector by Nguyen Thi Xuan, Thuy, Researcher, Integration Policy and Strategy Division (ISIP) Institute for Industrial Policies and Strategies (IPSI), Vietnam.

Institutional and Governance Constraints

106. Government's role in enhancing FDI-SME linkages is three-fold: as an information provider; a connector of supply and demand (facilitator); and a regulator⁶⁶. There are information asymmetry failures involved in connecting buyers and suppliers, even if there is mutual motivation on the part of FDIs and SMEs to create linkages on their own. To date, there are government efforts to address (i) coordination failures. We also note other policy and institutional constraints such as (ii) lack of enforcement; (iii) insufficient policy alignment; and (iv) poor implementation of BDS. Results suggest that all of these issues are binding. This suggests that horizontal interventions, such as improvement of investment climate, are a key part in addressing weak linkages.

Coordination failure

107. In the ICT hardware/electronics sector, government efforts to build supplier capabilities and match potential partners are largely ineffective despite acknowledging the need for backward linkages. Thus, high search costs remain given lack of effective matching of domestic suppliers to foreign firms. Other coordinating mechanisms in the ICT sector are also limited: firms complain about the lack of accelerator and incubator programs. Current existing accelerator and incubator programs are also deemed ineffective in addressing coordination issues: for example, these programs lack knowledge about the local and global ICT markets. This means that coordination failures remain to be addressed.

108. Nonetheless, there seems to be successful government efforts to address coordination failure (which however opened up a supplier-related issue). The government partnered with FDIs to facilitate a call-for-interest and submission of proposal by domestic suppliers. For example, the government announced that Samsung Vietnam is willing to buy input parts for its smartphones and tablets. The call for proposal resulted to 200 firms' submission of interest. However, even if the coordination problem is solved, the underlying problem lies in the lack of quality suppliers who can meet the requirements of Samsung.

109. For the automotive sector, the market (transaction-based) governance structure of the automotive sector meant that coordination failure has to be addressed through government intervention. Tier 3 suppliers in this sector do not deal directly with lead firms, and so there is generally a lack of incentives for lead firms to provide skills and related support and knowledge transfers. Suppliers who often receive these types of support are Tier 1 suppliers (and sometimes Tier 2 suppliers). Conversely, Tier 3 domestic suppliers may have little incentives to invest in upgrading such as moving up to become Tier 1 or Tier 2 suppliers given

⁶⁶ World Bank, 'Making FDI work in SSA', p.4.

that there are risks that costs incurred cannot be reaped back. For example, there are no guarantees that these suppliers will get contracts from foreign firms after they upgrade. Supporting industry development will thus be crucial to develop this sector.

110. As a complementary step to solve coordination failure, lack of information between supply and demand can be addressed by creating a comprehensive and up-to-date (and also sector-specific) buyer-supplier database. However, the limited number of existing databases in Vietnam suffer from (a) lack of connections with other similar databases; (b) out-datedness; (c) inaccessibility (e.g., most are unavailable online); or (d) lack of particular information that foreign firms are looking for.

Lack of enforcement

111. Interviews with firms reveal that while there are market-based legal frameworks, the laws written on paper are not put into actual practice: there is a lack of enforcement. Also, application of rules is subjective and government bureaucratic processes remain slow. For example, domestic firms complain that, unlike the approach put forth by Asian economies (e.g., Korea and Singapore) in honing private domestic firm growth, laws related to tax incentives (property tax exemptions), access to credit, intellectual property rights (IPR) for high-tech firms are de-jure only. Firms wanting to take advantage of these incentives face lengthy and cumbersome procedures. Furthermore, IPR approval processes are long and there are complaints that ideas are stolen even when patent protection is filed. Given the large and fragmented composition of domestic firms, domestic firms lack a united voice to lobby for enforcement of regulations.
112. In the ICT sector, other related enforcement issues include lack of transparency in vendor selection processes for government contracts and lack of streamlined business procedures. Putting Vietnam into perspective, Vietnam ranked quite poorly in terms of transparency in government policy-making (116th out of 144 countries) and in burden of government regulations (101st) in the 2014-2015 Global Competitiveness Report.

Insufficient policy alignment

113. Lack of policy alignment (e.g., differential advantages according to firm ownership) may crowd out domestic suppliers instead of create linkages between SMEs and FDIs. Today, even if there is equal legal support for FDIs, SOEs, and private domestic firms, there remains implicit rules that are differentially applied to firms. Private firms complain that they are disadvantaged in accessing resources such as land, capital and government contracts (even while their contribution to the economy and jobs growth are significant). In essence, lack of effective domestic competition policies (to complementary investment promotion policies for

FDIs) risks weakening the development of domestic firms and set-up of forward and backward linkages between domestic and foreign firms.

114. In the ICT sector, attempts to engage in R&D activities are largely unsuccessful. This is in part due to misalignment in policy objectives, as exemplified in the narrow scope of what constitutes ‘high-tech’ and ‘R&D’ in the ‘Law on High Technologies’. This limits participation of innovative firms willing to innovate and engage in technological transfer to domestic firms.
115. In the automotive sector, investment licenses were excessively issued to spur the production of the industry starting in 1996, and this contributed to a fragmented under-performing local industry. There is also a lack of policy alignment in tariff structures to support multi-level part manufacturing. For example, there is no import tariff on inductors for power supplies. However, inputs to make these inductors (i.e., bobbin components) are imposed a 12% tariff. Similarly, import tariffs for spare parts of machinery range between 7% and 10% even if there is no import tariff for the machinery itself. Lack of alignment in tariff structures create disincentives in producing electronics and related manufacturing inputs.

Implementation challenges in delivery of BDS for SMEs

116. Poor implementation of supporting industry services can be attributed to fragmentation in the institutional landscape and weak government capacity. For example, supporting industry services and related SME support programs are handled by different ministries and remain uncoordinated at the national and local levels. This issue is further highlighted in the next Chapter.
117. In the electronics/ICT sector, local content development programs exist but their effectiveness is questionable. Firms in this sector complain about the lack of consistency of government support for its supporting industry program. As a result, firms are left to independently develop their input supply base.

International Experience in Linkages Programs

118. What can Vietnam learn from other countries that have implemented linkages programs? Drawing on the experience of four countries - Czech Republic, Malaysia, Chile and Costa Rica – we highlight the different policy and institutional responses that were adopted in response to the country specific constraints in developing linkages program in each case. We pull together the common elements in each of the programs, and also shed light on what works and what does not for promoting linkages in different settings. We hope these insights can help jump start the implementation of Vietnam’s supporting industries program as well as side-step the mistakes that were made by its predecessors along the way.

Common Elements of linkage programs – what works and what does not

119. The impetus for developing linkages in the 4 countries - Czech Republic, Malaysia, Chile and Costa Rica – was the move towards greater integration and commitments to liberalize trade and investments. For instance, for Czech Republic, it was the accession to the European Union; for Chile, it was the signing of various trade agreements, creating the need for exporters (and their suppliers) to comply with international production standards. In all instances, with foreign investments pouring in, the Government was keen to capture productivity spillovers and access to foreign markets. In examining the country cases, the following are the common thematic pillars of policy and institutional responses that were employed given the specific country challenges and opportunities. *Annex 3.1.* provides a summary of the specifics for each country.
120. **Overarching governance and institutional set-up is essential to address coordination failure.** This is considered a pre-requisite for success in all 4 countries. This set-up covers multiple dimensions:
- *High-level political commitment and ownership* of the program is critical for spear-heading strategy, policies and institutional arrangements; coordinating across agencies and stakeholders; and undertaking oversight function.
 - *Government needs to identify and/or develop an agency* to manage the program design, develop FDI/sector strategy, policies and instruments, and coordinate with relevant stakeholders (public and private) for its effective implementation. This role was played by CORFO (Economic Development Agency) in Chile, while CzechInvest (Investment Promotion Agency) was the lead agency in Czech Republic. PROCOMER (export promotion agency) headed Costa Rica’s linkages program.
 - *Autonomy of the agency* is key, and typically the agency is placed under the purview of the Ministry of Trade and Industry - as is the case in Malaysia and Czech Republic. Equally critical is the institutional capacity to design and implement linkages strategies and deliver relevant support services.
 - *Coordinating mechanism* for aligning roles and responsibilities among government agencies must be implemented to address key constraints in the enabling and regulatory environment that may impact linkages. Equally important is the role of the Government in coordinating with all the other relevant bodies necessary for the effective and demand-driven delivery of the BDS. This mechanism may be served by establishing an inter-ministerial steering committee. Some of the key constraints addressed included the following: promoting competition policies (Chile); levelling the playing field between foreign and

domestic firms (Czech Republic); and working with private sector to address skills shortages (Malaysia).

- **What does not work.** The set-up does not work if there are too many agencies involved with overlapping functions, and if coordination across agencies is weak. In all 4 cases, the lead agency was empowered and worked across government agencies. Costa Rica's experience provides an example of trial and error in its linkage efforts. It experienced three prior failed linkage programs during the latter part of the 1990s. Ineffectiveness of prior linkage efforts was largely attributed to lack of coordination and competition between programs; this is further complicated by the fact that there is no measured strategy outlining the role of FDI in Costa Rica's development as well as a lack of comprehensive strategy to develop national absorption capabilities through improved workforce skills, increased innovation capacity of domestic firms, etc.⁶⁷ The country's later more successful linkage program, CR Provee, was set-up initially as a pilot in 2001 before being formally integrated into the country's export promotion agency PROCOMER in 2004 as a way to institutionalize the program and more sustainably increase FDI-SME linkages.⁶⁸

121. **Evidence-based strategy for fostering linkage programs.** Supply chains are selected based on assessment of market signals and latest comparative advantage. Where participation in GVCs is needed, the challenge is to move up the value chain into higher value-added functions. Therefore, demand and supply side analysis should be undertaken.

- MNEs' (or tier 1 buyers') choice of an 'optimal' or 'successful' supply network is an important consideration when selecting focus sectors, and this depends on the type of supply chains. For example, MNEs requiring ubiquitous and simpler inputs may find that having a network of many smaller suppliers is optimal, whereas MNEs requiring more sophisticated inputs may find that a network of fewer but larger suppliers is considered successful. In general, criteria for selecting supply chains should be based on: (i) critical mass of lead firms and their FDI Tier 1 suppliers already operating and offering good potential for increased value-addition and continued growth; (ii) nature/length of supply chain (supply chain tiers and migration path); (iii) demand from MNEs for local supply if qualifications can be met and willingness to work in partnership through a supplier development program (SDP) can be achieved; and (iv) potential supplier capacity. These criteria are critical elements of a demand-led linkage program.
- SDP should focus on SMEs that have the potential to become suppliers (both products and service suppliers) as not all SMEs are linkage program candidates. Enterprises should be selected on the basis of potential to become long-term suppliers. Clear and transparent criteria for selecting suppliers should also be developed. For example, particular weight can be given to candidates sought by MNEs, but criteria may also include promising companies that are still unknown

⁶⁷ Paus and Gallagher, 2008.

⁶⁸ Monge-González and Rodríguez-Álvarez, 2013.

to MNEs. For instance, in Czech Republic's case, this is partly achieved by an initial review of existing information of applications and through MNE consultation. Also, in the Czech pilot model, an additional competitive element is built into the program before major resources are committed. These programs - if they are to be effective - are very demanding in terms of management time, supplier commitment, and ambition (key success factors).

- As another example, Malaysia uses the SME Competitiveness Rating for Enhancement (SCORE) system, a diagnostic tool assessing SME capabilities and performance. SMEs are graded between 0 and 5 stars, and are provided tailored capability assistance depending on one's rating. SMEs which achieved 4 or 5 stars are then linked to MNE or government linked corporations (buyers), with a view of orienting these firms towards the international markets.⁶⁹ Malaysia uses technical capabilities of SMEs as key criteria, including level of automation, IPR registration, level of product/process improvements, and compliance with export requirements. Recent empirical evidence also suggests the importance of management skills in firm productivity⁷⁰; therefore, the quality of management systems of potential suppliers can be another indicator of firm capacity for technological absorption and in meeting higher productivity goals.
- **What does not work.** SDP should be targeted and not include all SMEs. Smaller firms tend to lack scale and capabilities for meeting MNEs demands and standards. Improvements in the large majority of firms, nonetheless, can be supported by reducing horizontal enabling environment constraints. This can help strengthen SMEs and possibly increase indirect opportunities for linkages.
- **What does not work.** "Picking winners" through ad hoc and uninformed means are found to be ineffective. Rather, it is targeting industries that have the potential to move up the value chain into higher value-added functions. Malaysia learned this lesson through its prior linkage program, Vendor Development Program (VDP). Local firm participants to the VDP were initially restricted to Bumiputera-owned or managed firms, disallowing the participation of more capable Chinese-owned firms. This resulted in limiting the number of domestic suppliers that could meet MNC input requirements. VDP's later relaxation of this restrictive supplier criteria resulted to more positive results, especially in the automotive sector. This lesson served as a basis for succeeding Malaysian linkages programs to develop more merit-based supplier assessment processes.⁷¹

122. **Connecting MNEs and local firms through supplier data base and business-to-business (B2B) match-making services.** This entails on-line access to quality local supplier information aligned to the specific information demands from investors, and also improving match making services and events (for examples, meet-the-buyer events and company visits). For instance, CzechInvest's database has more than 3,500 high quality records of suppliers

⁶⁹ More information can be found at: <http://www.score.gov.my/>.

⁷⁰ Bloom, et al, 2015.

⁷¹ UNCTAD, 2011.

interested in long-term cooperation with foreign partners. In Costa Rica, CINDE reports that the directory has been an important factor in helping companies start operating in the country.

- There can also be a private sector role in serving as a repository of the supplier database, and private sector involvement in this area can be further explored. For example, in Chile's mining sector, Antofagasta Industry Association (AIA)'s sector-level supplier database has information on more than 2,500 domestic suppliers. To be included in the database, suppliers pay a registration fee and an annual maintenance fee (around US\$200-400 yearly), and can undergo qualification activities, such as labor certificate and social security compliance, financial and legal analysis, and operations training.⁷²
- Databases can moreover incorporate reputation building amongst suppliers, in ways that allow SMEs to earn a reputation of quality and reliability overtime. Some successful international models can be drawn from that helps SME-suppliers build their reputation as a 'verified' and 'trustworthy' supplier.

Box 3. Building the reputation of suppliers – Case of China's Alibaba

China's *Alibaba* website has a 10-level rating system where suppliers accumulate a 'rating' for completed online orders (i.e. a higher 'transaction level' corresponds to sellers gaining more of the buyers' attention).⁷³ Further, suppliers using Alibaba can opt for a paid 'Gold Supplier' membership. Gold Suppliers undergo supplier verification services that verify the legal status and contact information of suppliers (minimum required level of verification undertaken by Alibaba and/or an independent assessor). In a more stringent but optional case, Gold Suppliers can also be further verified based on main product lines/services and supplier capabilities, including on supplier qualification (i.e., product and supplier certifications), human resources, export capacity, production process management, R&D abilities, and company expansion plans. Gold Suppliers who passed this assessment are called 'Assessed Suppliers', and onsite assessment is solely done by a top global inspection company.⁷⁴ Finally, Alibaba has an exclusive channel called 'Selection' for export-oriented suppliers. Additional requisite for membership in this channel/database is based on real export performance (which is regularly reviewed). 'Selection' suppliers are considered the top supply performers in their respective industry: they gain access to 'Identity Verified Buyers' thereby reducing screening cost of sourcing on both sides. Both sides also have access to each other's trade data.⁷⁵ Another example is the *JETRO* model that uses an evaluation sheet of more than 100 points to be assessed, and companies that pass the required benchmark are included in the database.

⁷² Farole and Winkler, 2014.

⁷³ More information can be found at: https://service.alibaba.com/buyer/faq_detail/20150159.htm

⁷⁴ More information can be found at:

http://service.alibaba.com/buyer/ab/safety_security/products/verification_services.php?spm=5386.1599690.1998355780.18.ZV NKPE

⁷⁵ More information can be found at: <https://selection.alibaba.com/>

- **What does not work.** Lack of specificity of information in the supplier database. Czech Republic's successful experience indicates the importance of adequate information that buyers are looking for. Czech Republic's database can be accessed for free at CzechInvest's website⁷⁶, and the database can be disaggregated according to sector, products within each sector, and location. For example, the automotive sector database disaggregates suppliers according to their tier placements in the supply chain (i.e., Tier 1, 2, 3) and product modules (i.e. individual engine parts, drive-train parts, brakes, etc.). Supplier information include contact information, products, customer references, and quality standards certificate obtained by the potential supplier. Lower-tier suppliers, such as that in the automotive sector, can have opportunities of contact with MNCs as a potential supplier.

123. **Upgrading capacity of local firms through demand-driven supplier development programs.**

- **Lead firm/MNE-led approach:** Active engagement and support of the MNEs/lead firms (OEMs and Tier 1 suppliers) at the head of the supply chain throughout is key to a successful linkages program. As a market-led program, MNEs are critical stakeholders for SDP design and implementation. Lead firms should also be *members of the steering committee*.
- MNEs can play a key role in identification and selection of companies with the potential for becoming suppliers. For instance, in Czech Republic's case, comprehensive business reviews were benchmarked against MNE standards. MNEs' nominations are based on supplier database, market analysis, and transparent scoring. Essentially, industry ownership of the process is required to ensure a demand-driven SDP.
- An SDP program is an efficient way to build the local business consulting capacity to help companies innovate. MNEs can be encouraged to partner with local institutes of higher education, research, or technical training. The Czech SDP trained local specialists to conduct sector-specific enterprise audits and acquired universities' support to develop training curricula. Even countries without large FDI inflows can benefit from similar programs by upgrading companies' capacities to identify supply opportunities. The Malaysian model, through the renowned Penang Skills Development Center (PSDC), showcases a vocational training center that is managed by the private sector and represented by MNCs (e.g., Motorola, HP and Intel) and domestic SMEs in the steering committee. Moreover, MNCs are given a free-hand in designing customized training program curriculum aimed at developing domestic SME supplier capabilities. Behavioral incentives⁷⁷ can be provided to local suppliers in terms of upgrading skills, product

⁷⁶ More information can be found at: <https://suppliers.czechinvest.org/>

⁷⁷ Behavioral incentives are primarily aimed at changing the effective behavior of investors. The objective can be related to stimulating economic activities undertaken by firms – for instance, innovation, skills upgrading through training and integrating FDI with local economy through SDP.

standards, certification, operational standards, and efficiency; and to encourage MNEs to source locally or invest in supplier training/upgrading.

- Choice of instruments: In order to help local firms invest in skills, and technological and managerial upgrading, the following forms of financial incentives are common: (i) tax incentives; (ii) matching grants/cost-sharing schemes; (iii) subsidized loans; and (iv) loan guarantees.
- Malaysia, for example, provided a menu of tax incentives for both SMEs and MNEs. MNE costs related to employee training, product development and testing, and technical assistance to SMEs for quality product assurance and improvement are allowed to be deducted by MNEs in their income tax liabilities. In turn, eligible suppliers can use incentives to improve the quality of their products. Eligibility for these supplier incentives are contingent upon manufacture and supply of promoted products to MNCs or large domestic firms (generally capital-intensive products) or participation in R&D activities. Incentives for SME-suppliers include: (i) pioneer status with 100% tax exemption on statutory income for a period of 5 years; and (ii) 60% investment tax allowance (100% for promoted areas) are allowed on qualifying capital spending incurred during a 5-year time period. Further, for SME-suppliers who are capable of achieving international standards (in terms of quality, price, and capacity), income tax exemption increases to 100% of the statutory income for a period of 10 years; or 100% investment tax allowance can be used on qualifying capital spending incurred during a 5-year time period. Aside from tax incentives, Malaysia also provided cost subsidies to SMEs for mentoring and employee training at registered training centers such as PSDC (i.e., SMEs are eligible for grants amounting to 80% of the training cost).⁷⁸
- Chile's public sector-led linkage program provides cost subsidies for large buyer-sponsored management projects for SME-suppliers. Large buyer-sponsored projects must support 20 or more SMEs in the agribusiness sector (i.e., agriculture or forestry) or 10 or more SMEs in other sectors. These subsidies support costs related to complementary activities provided by external firms or by buyer-sponsors themselves, such as training of personnel, professional advice, transfer of technology, and technical assistance for domestic suppliers. Subsidies cover up to 50% of the project cost, with possibility of subsidy renewal depending on performance.
- Incentives for domestic firms to upgrade (in order to produce the inputs that MNEs demand) can be supported by behavioral incentives, although there remain risks that investments and efforts made in upgradation will not lead to sufficient input purchases from buyers (and therefore lack of an investment return). This is highly likely for suppliers with no secondary potential buyer (correspondingly suppliers lack bargaining power on prices of inputs that they can charge). This is indeed a risk for suppliers, which may be more or less critical depending on the supply chain and product specificity. For example, suppliers supplying more sophisticated

⁷⁸ MIDA (2009) and UNCTAD (2011).

inputs may find it more difficult to sell to buyers from different sectors while it would be easier for suppliers producing cross-cutting simpler inputs to sell across sectors. The risk could be partly mitigated by ensuring broad access to information on buyers, so that suppliers can make risk-informed investment decisions, and by stressing the importance for local firms to obtain sufficient commitment from buyers regarding purchases before making investments.

- ***What does not work.*** Linkages cannot be mandated or forced— through local content requirements (LCRs) – but require upgrading of local firm capabilities to meet lead firm’s quality, cost and delivery (QCD) standards.

124. **Type of support must be driven by constraints** that prevent linkages between FDI and domestic suppliers. For instance, the need for specialized consultancy may require a different response from general training gaps. For instance, in the Czech case, an integrated and customized approach to identifying the business needs of the participating supplier/potential supplier companies based on international benchmarks are employed. The EFQM quality model (which the SDP uses) served as the basis for its Business Reviews of individual participating companies. The review looks at all aspects of a business to assess priority needs, which will differ between companies depending on their stage of development, and suggests appropriate responses. It therefore goes wider than the immediate operational issues covered by programs such as those of the MNEs. It addresses, for example, broader strategic leadership and management issues, as the intention is not merely to raise companies to the level where they can obtain immediately available MNC business, but to increase their long-term competitiveness and move them up the value chain.

- ***What does not work.*** The SDP does not work if specific constraints from both demand (buyer) and supply (seller) are not taken on board in designing the programs.

125. **Coordinated and streamlined delivery of support services.** Equally important to identifying the correct needs of SMEs and the choice of instrument is the delivery mechanism and how it is administered. Some support is undertaken at firm level through specialized advisory technical assistance, and in other instances, training needs are supplied through on-going government programs. Most SMEs have limited management time and capability, are often not aware of or have the capacity to explore the best practice options and business support available and how it might apply to their situation. Removing the hassle out of putting together a focused package of integrated support which meets their real individual needs can thus be as valuable as any financial support that might be provided. As the Czech model shows, the SDP program is an efficient way to build the local business consulting capacity to help companies innovate trained local specialists to conduct sector-specific enterprise audits and universities to develop training curricula.

What does not work. The SDP may not work optimally if the support is fragmented and access to the program is bureaucratic and time-costly. For example, while Costa Rica’s Provee (SDP) provides effective matchmaking

services for suppliers and buyers⁷⁹, the program does not provide direct financing. This is despite that participating firms in CR Provee name financial access to be one of the top concerns needed for technological upgrading and better linkages.⁸⁰ Streamlining support to CR Provee firms with other financial and non-financial support programs remains a challenge for Costa Rica (contributing to relatively low program firm participants), despite that positive impacts can be found for linkage participants overall.⁸¹

126. Linkage support efforts in the 4 cases resulted in positive outputs and/or impacts. In Czech Republic, evaluation of the pilot program found that \$46 million worth of new contracts were created from 2000-2003 as well as higher productivity for suppliers to MNCs (versus non-suppliers) on average.⁸² In Malaysia, increased sourcing by MNCs (e.g., Tesco) translated to domestic SME suppliers becoming popular local brands, among other results.⁸³ In Chile, an IDB impact evaluation found that the SDP was beneficial to both SME suppliers and large buyers. SME-suppliers experienced growth in terms of sales, employment, and worker salaries compared to non-participating SMEs (control group), whereas the impact for large buyer-firms are found in the form of increased output sales and export ability.⁸⁴ In Costa Rica, an impact evaluation found that participating firms in CR Provee have higher real average wages paid to employees, increased employment, and a higher probability of exporting compared to non-participants.⁸⁵

127. There are also sectoral-level private sector solutions to improve linkages and these solutions may not be discounted. Particularly in Chile's mining sector, the private sector-led SDP called World Class Supplier Development Program is an FDI-driven mechanism (launched in 2009 by BHP Billiton, an international mining firm) that aims to expand innovation through collaborative efforts between mining firms and suppliers in solving challenges faced by the Chilean mining industry. The program aims to address the lack of competitiveness amongst mining suppliers (where 98% of domestic suppliers use or adapt simple technology and do not innovate), with a view of creating 250 world-class suppliers (defined as suppliers with international recognition, export at least 30% of supplier services, and have innovative and technologically advanced services) in the mining industry by 2020. Local suppliers provide innovative upgrading solutions to the key areas identified by mining firms as needing innovative interventions, namely water, energy, HSEC (health, safety, environment and community), human capital, and operational efficiency. Selection of key projects that need solutions under these areas must meet selection criteria (i.e., economic benefit, problem urgency, replicability, technology risk, and impact). A cluster of 2-3 domestic suppliers will come together and then propose and pilot innovative solutions. Mining

⁷⁹ Paus and Gallager, 2008.

⁸⁰ Monge-González et al, 2010.

⁸¹ Monge-González and Rodríguez-Álvarez, 2013.

⁸² Smarzynska and Spatareanu, 2004.

⁸³ UNCTAD, 2011.

⁸⁴ Arráiz, et al, 2011.

⁸⁵ Monge-González and Rodríguez-Álvarez, 2013.

firms provide financial and consultancy support as innovation projects are developed (e.g., management, planning, corporate governance, and planning). As of end-2012, the World Class program was partnering with 36 suppliers (employing over 5,000 workers) on 43 projects (total sales of US\$400 million). The initial project also resulted to cost savings for BHP Billiton (estimated to be at US\$121 million).⁸⁶

Concluding Summary

128. This chapter undertook an in-depth analysis of sources of constraints that deter linkages from suppliers' and buyers' perspective in Vietnam and thus warrant interventions. Lack of availability of skilled workers and lack of information on FDI sourcing strategies and standards appear to be the binding constraints for domestic suppliers. Across manufacturing sectors, Vietnamese firms also suffer from lack of management skills. Without formal information channels to obtain information on FDI sourcing strategies, potential domestic suppliers with no business connections are disadvantaged in terms of linkage opportunities. Moreover, domestic firms may have limited direct interaction with global buyers especially if lead firms (especially OEMs) coordinate from headquarter locations outside Vietnam. Further, lack of information on standards on the part of suppliers weakens linkage opportunities given that upper-tier suppliers and their suppliers are required to follow lead firms' quality management processes. On the demand side, evidence suggests that lack of competitive local suppliers (due to lack of domestic suppliers who can meet quality standards in GVC) is the first-order binding constraint that MNEs currently face. At the same time, we also highlighted the potential pitfalls on the public sector domain, particularly related to institutional fragmentation and capabilities. There are the government and institutional failures involved in connecting buyers and suppliers, even if there is mutual motivation on the part of MNEs and SMEs to create linkages on their own. As the earlier analysis indicates, coordination failures as well as constraints related to lack of enforcement; insufficient policy alignment; and poor implementation of supporting industry services, appear to be binding in Vietnam. This suggests that horizontal interventions, such as improvement of investment climate, are a key part in addressing weak linkages.

129. Drawing on international experiences, the chapter pulls together the common elements for designing and implementing a successful linkage program. These insights can be useful for Vietnam as it focuses on the operationalization of its linkage program, within the context of the country constraints. International experiences also highlight some private sector approaches in improving linkages, such as in the area of supplier database development (and maintenance) and creation of a sector-focused private sector-led SDP. Given the political economy of Vietnam (and existing private sector constraints), private sector's role in supporting the linkage agenda is equally valuable, and more so, needed.

⁸⁶ Farole and Winkler, 2014 and ICMM, 2017.

Chapter 4: Review of Policies and Institutions for Supporting Enterprise Competitiveness and Linkages

Lessons from within Vietnam

131. This chapter focuses on the current programs and policies in place *vis a vis* the key binding constraints identified earlier. In doing so, it highlights the gaps, if any, for supporting SMEs and linkage programs in Vietnam. It then assesses a sub-set of the programs that relate to linkages. It highlights the systemic issues that pervade across programs and the scope for improvements for increased effectiveness and impact.
132. The primary approach used in this SME program and policy mapping exercise is a desk review. As such, there are limitations involved. First, the focus is primarily on state-led (central government-led) SME support programs and does not cover programs led by the private sector, provincial authorities, or NGOs.⁸⁷ It reviews the SME support programs and policies that are currently being offered by the three key ministries - i.e. MoIT, MPI and MoST - mandated to support SMEs in manufacturing and services. Second, there are limitations on data collection particularly in terms of the implementation progress of these various programs. To minimize these data constraints, the report also draws from SME feedback (through a qualitative survey)⁸⁸ and consultations with both SME representatives and the government through a roundtable discussion. In summary, there are 28 major SME support programs and 5 policies (or regulations) related to SMEs. Majority of the programs has an indirect focus on SMEs (i.e., programs broadly focusing on all firm sizes). For those which have direct focus on SMEs, these are 8 in total.
133. The chapter is structured as follows. Section one identifies key SME support programs that address binding constraints in Vietnam. Section two presents the design elements of these different programs: it highlights programs that have behavioral incentives, and disaggregates programs according to their support to the different stages of a firm's life cycle. This section also identifies programs that have a direct focus on SMEs (i.e., SMEs as the primary program recipients), and programs that have an explicit focus on creating linkages. This section further comments on the timelines, pre-determined budgets as well as monitoring and evaluation plans of the programs. The third section discusses the implementation processes, including the involvement of stakeholders and key players of these support programs. Finally, section four provides recommendations on how SME support programs can be strengthened, in line with achieving the programs' respective objectives.

⁸⁷ The report, nonetheless, discusses other stakeholders' involvement in these state-led support programs.

⁸⁸ The Survey on Government Support Policies and Programs on SMEs ('SME survey') was conducted by CIEM on behalf of the World Bank. The survey's objectives are the following: (i) seek feedback from SMEs about the effectiveness (in terms of accessibility and usefulness) of the SME programs and policies that are currently being implemented; (ii) identify any gaps in SME support from the Government; and (iii) inform the design and enhancement of implementation of the SMEs support programs and policies. Target respondents were members of the Vietnam Association of SMEs (VINASME). Respondents were randomly selected and emailed to answer the survey. There were 149 survey respondents in total.

Alignment of SME support programs

134. Existing SME support programs appear in theory to address constraints that firms face in Vietnam. However, as discussed below, their effectiveness is not clear. About half of the programs and policies (currently in operation) do not have monitoring and evaluation plans. Many of the SME support programs have limited assessments - whether independently or internally - and this makes it difficult to evaluate whether the programs are effective in terms of achieving intended outcomes/impacts. Equally important, there is an urgent need to improve implementation and program coherence across different ministries.

Lack of access to finance

135. Financial access is considered a top business constraint by firms. GoV has initiated interventions that particularly address this issue, such as reducing loan costs and promoting the use of credit guarantees. Commercial banks, for its part, support the government's initiative by targeting SME customers, revamping its organizational structure by setting up SME-specific departments, and formulating lending policies that accommodate SME needs.

136. There are 3 primary state-led financial support programs, namely: (i) Credit guarantees for SMEs through the Vietnam Development Bank, (ii) Credit guarantee fund for SMEs, and the (iii) SME Development Fund. The main differences between the 3 finance programs relate to the government pioneer, implementing partner, and priority sectors targeted for financial access.

Table 1. Financial support programs

Program	Program objective	Government pioneer and implementing partner	Priority sectors	Fund amount
Credit guarantees for SMEs through the Vietnam Development Bank (VDB)	Promote financial access by guaranteeing commercial loans to SMEs (up to 85% of total project investment)	Pioneered by the National Assembly in 2008 and implemented by Vietnam Development Bank	All manufacturing sectors and services sectors in health care and cargo transport	Total guarantee value sum to VND 11,000 billion (1,500 businesses served)
Credit guarantee fund for SMEs	Provide guarantees for SMEs' loans at credit institutions	Pioneered by the Ministry of Planning and Investment (MPI) in 2001 and implemented by the Provincial People's Committees	No priority sectors mentioned	Total charter capital sum to VND 575 billion, including VND 194.5 billion from Ho Chi Minh City (21 provinces have set up the fund)
SME Development Fund (only recently become operational but its establishment was	Enhance firm competitiveness and increase firm income and employment through supporting SMEs' production-viable business plans	Pioneered by the MPI, and working with the Ministry of Finance to develop regulations on operationalizing the fund	Agriculture, forestry, aquaculture, processing and fabricating industries, water supply services, and waste and sewage management/treatment services	Total charter capital sum to VND 2,000 billion

approved by the Prime Minister earlier)

137. Other SME support programs indirectly address financial access issues by addressing other constraints concurrently. In general, these programs provide financial support, such as capital grants and subsidies. Financial incentives are tied to some desired objectives, such as product or skills upgrading. The Supporting Industry Development program, for example, provides financial capital and cost subsidies, with the objective of increasing linkages. Apart from the provision of financial support, one of the activities of the supporting industry program includes tasking the Vietnam Development Bank to consider the development of specific lending regulations supportive of SMEs' conditions in this industry.

Multiple constraints explaining lack of product/process innovation

138. Close to 40% of SME support programs (or 11 programs) in Vietnam are focused on innovation. Innovation programs are primarily product-focused, with aims to develop high-tech products. Nonetheless, some maybe process-focused, such as the use of information technology in existing processes. In general, these programs tackle multiple constraints and market failures (such as externalities, lack of access to finance, lack of skills, lack of information, or coordination failures). Table 2 provides a snapshot of select programs, including constraints addressed by these activities.

Table 2. Innovation programs

Program	Activities	Constraints/Market failure addressed
National Technology Innovation Programme until 2020	(a) Support firms' business application of IT and build management information systems (b) Develop a database of new/ advanced technology and professional technology workforce (c) Assist firms in R&D, product testing, training, hiring of experts in product design and manufacture of new products and technological change processes (d) Support establishment of business incubators	Externalities, lack of information, lack of skills, coordination failures
Enhancing businesses' productivity and quality of products and goods	(a) Formulate and disseminate 4,000 new national product standards and regulations (of which 45% of these national standards are in line with international and regional standards) (b) Conduct research and training for the evaluation and certification of quality management systems (consistent with international standards); conduct productivity and quality management training for over 1,500 staffs (to date, 50% of staffs trained were SMEs); provide productivity improvement consulting services for 363 firms (to date, 80% of firms were SMEs)	Lack of information (on standards and technology), lack of skilled workforce; lack of competitive local supplier-firms
Intellectual Property Development Program	(a) Conduct awareness raising and trainings on intellectual property (b) Support the intellectual property rights of businesses, universities, scientific research institutions and individuals in Vietnam	Lack of information, externalities

(c) Support the adoption of process management and development of scientific research products and information to enhance the value of intellectual property

(d) Support registration of intellectual property of local products (especially products which have export potential) and foreign patent applications that are not protected in Vietnam

139. Pertinent to improving linkages, the Supporting Industry Development Program have innovation-related activities, such as (i) popularizing the use of technology in industrial production; and (ii) application of management systems in the manufacturing sector.

140. The support towards innovative startups and SMEs is further reiterated in the recent SME law that outlines support through incubation and technical support facilities. Specifically, the support envisaged includes support to pilot products, for use of technical facilities and business incubators and co-working spaces for innovative startups.

Lack of skilled workforce

141. Training program solutions to address lack of skills are primarily subsumed as an activity (or sub-program) of broader SME support programs. In total, there are 7 programs seeking to address this constraint. The only training-specific SME support program is the ‘Human resource development for SMEs’ program, which aimed at developing entrepreneurs’ business management skills (including corporate governance) and skills on how to start their own businesses. On average, training cost per person is around VND 1.2 million from 2011-2013: this figure was based on VND 60 million (or US\$ 2 million) annual funding from the state and 50,000 SME managers and workers trained annually. An Agency for Enterprise Development (AED) report shows that SME participants in these trainings have positive feedback on these training programs, such as increased knowledge on corporate governance and increased confidence about their businesses and in their firms’ business strategies.⁸⁹

142. Examples of solutions addressing lack of skills can be divided according to the recipients of these trainings, namely management staffs (non-production workers) and production workers:

- (i) Management-level trainings include training on technology management, innovation management and technology for business leaders (‘High-tech development’ program and ‘Business Incubators’ program) and business administration skills training for individuals interested in opening an SME (‘Human resource development for SMEs’ program).
- (ii) Production workforce trainings include training on science and technology and related subjects (‘Development of national science and technology enterprises’ program) and vocational training for the workforce (‘Promotion of industrial enterprises including rural areas’ program). The ‘National Technology Innovation Programme until 2020’

⁸⁹ MPI on training course implementation (AED, 2014).

program supports training for both production and non-production workers, and have SME-specific targets. In particular, the program targets 30,000 engineers, technicians and managers trained on technology management by 2015⁹⁰ and 80,000 by 2020.

- (iii) Other programs also aim to support transition of students into the workforce through internships with manufacturing and services companies, such as the ‘Business Incubators’ program.

143. As for the supporting industry sector, the Supporting Industry Development Program 2011-2020 has a relatively vague concept of addressing lack of skills: its program scope includes a sub-program on ‘training human resources’ for SMEs in the supporting industry sector.

Lack of information

144. There are 14 programs that address lack of information and other constraints simultaneously. There are 2 programs that particularly address the lack of information issue. Common lack of information solutions include trainings, such as the following:

- (i) Face-to-face or online training courses on startup and business administration (‘Human resource development for SMEs’ program);
- (ii) Training on standards and certification of quality management systems (‘Enhancing the productivity and quality of products of SMEs’ program); and
- (iii) Training on intellectual property (Intellectual Property Development program).

145. The 2 programs that specifically address information asymmetry are both online portals. One of them is a business portal: www.business.gov.vn. The website provides information on business operations, such as on starting-up a business, financing, and making tax payments. The website also provides directories of registered businesses, business associations, SME banks, and legal consultants⁹¹. The other online portal has export-oriented firms in mind: Vietnam’s Foreign Market Information Portal (<http://www.ttnn.com.vn/>) provides information about foreign market opportunities. Key difference between the 2 portals is that the business portal can be translated from Vietnamese to English, while the foreign market information website cannot. This suggests that the business portal also serves as an information resource for foreign firms seeking to know more about business processes and opportunities in Vietnam.

146. Information failures may also be addressed through campaigns (e.g., awareness campaigns). The Domestic Market Development Program (in connection with the “Vietnamese using Vietnamese goods” campaign) addresses information and coordination failures, with a particular objective of developing the domestic market by encouraging domestic consumers to buy locally produced goods. To address lack of information concerns, interventions include (i) awareness campaigns about domestic production capacity and quality; (ii) encouragement campaigns for domestic businesses to buy local production inputs; (iii) advertising campaigns to enable domestic firms to advertise their products to the public;

⁹⁰ It is unclear whether this target has been achieved.

⁹¹ It is unclear whether these directories can be accessed free of charge.

and (iv) website development as a means of institutionalizing the “Vietnamese using Vietnamese goods” campaign (www.tuhaohangvietnam.vn).

Lack of competitive local suppliers

147. There are 2 programs that aim to make local suppliers more competitive. The Supporting Industry Development Program 2011-2020 specifically targets SMEs, whereas the ‘Master plan on supporting industry development to 2020, Vision to 2030’ has a broader focus on firm size in key priority sectors.

148. The National Product Development Program is another SME support program that may address the issue of lack of competitive local suppliers in Vietnam, although the program is relatively unclear as to whether the goods to be produced are end-products or intermediate inputs. It aims to develop key Vietnamese export products using innovative technologies. Examples of products the program has developed include high-capacity lifting equipment (e.g., self-propelled cranes, tower cranes) and preventive vaccine for animals and livestock.

149. Another program specifically aimed at improving the standards of Vietnam’s products (which may include inputs and final goods)—translating into more competitive local inputs and/or products—is the ‘Enhancing the productivity and quality of products of SMEs’ program. The program, which runs from 2010 to 2020, aims to develop 4,000 national standards (of which 45% of these standards is targeted to be in-sync with international and regional standards). To date, the program has disseminated information on Vietnamese standards and regulations (between 2012 and 2013), conducted standards-related trainings, and implemented a quality management system ISO for over 300 SMEs. As part of this program, JICA experts, SME facilitators of the Northern and Southern SME Support Center, AED, and MPI have also collaborated and implemented an on-site consulting model to support firm implementation of 354 initiatives in technical improvements and improvement of 3S/5S production processes during the last 3 years.

Coordination failure

150. There are 11 programs that aimed to solve coordination failure between buyers and suppliers or between suppliers and research institutions, thereby reducing search costs and transaction costs (e.g., costs related to firm advertising and promotion activities, communication). Policies related to encouraging the development of industrial clusters and of supporting industries also address coordination failures. Common solutions for coordination failure in Vietnam include the following:

- (i) Match-making of supply and demand (e.g., Vietnam’s business-to-business eCommerce Platform (ECVN), Vietnam’s online technology and equipment market called Techmart Online);
- (ii) Connecting research institutions/scientific organizations/universities and enterprises through the ‘Development of national science and technology enterprises’ program;
- (iii) Enabling face-to-face buyer-seller coordination through trade fairs and trade promotion programs;

- (iv) Locational solutions such as the development of industrial clusters and industrial parks; and
 - (v) Construction of fixed selling points in provinces and centrally-run cities (e.g., Domestic Market Development Program).
151. For (iii), for example, Techmart Hanoi's Equipment and Technology International Fair in 2013 has attracted over 300 booths and displayed 352 technology-related products (providing a channel for firms to innovate and improve their product quality).
152. Another example is the trade promotion activities conducted as part of the National Trade Promotion Program, which is participated by local businesses. With a goal of heightening Vietnamese exports, the program generated about 1.4 billion dollars' worth of demand-supply contracts and 162 billion worth of memorandum of understanding (MOUs) in 2013, and supported 6,000 SMEs (90% of recipients). Annual budget stands at about VND 100 billion. Provinces have also actively allocated budgets for trade promotion programs in their respective localities.
153. For (v), the Domestic Market Development Program's objective of connecting domestic sellers to domestic consumers include not only informational campaigns (as discussed in the *Access to Information* section) but also construction of fixed selling points in provinces and centrally-run cities in order to hasten the flow of goods towards domestic consumers.

Public sector constraints related to (i) lack of enforcement and (ii) lack of policy alignment

154. Recognizing public sector constraints related to lack of enforcement and misaligned policies (contributing to lack of support for SMEs), two SME support programs sought to address these constraints, namely 'Legal Support for SMEs' program and 'Support to SMEs in government procurement and in provision of public services' ('Government Procurement' program).
155. The 'Legal Support for SMEs' program serves as a conduit for information dissemination on government efforts to level the playing field for the domestic sector. To date, the government has developed regulatory policies to overcome SMEs' concerns on accessing information about the law and law enforcement. The program's activities include development of legal databases (with particular focus on SMEs as the audience), building SMEs' legal knowledge through trainings, disseminating information related to laws and regulations on SMEs (through newsletters, radio and television), assisting SMEs on their legal issues, and collecting feedback from SMEs on how to improve the legal system.
156. The 'Government Procurement' program follows Korea's electronic procurement system (Koneps). This program seeks to replace paper-based bidding processes in government procurement through the online bidding platform (<http://muasamcong.mpi.gov.vn/>). Procurement procedures, including tender notice, are posted on this website. Firms are allowed to submit bids online, and results of the bidding processes are also published online. This platform was piloted in late 2010 before being fully implemented. The revised Procurement Law (i.e., Procurement Law No. 43/2013 / QH13 November 26, 2013) also

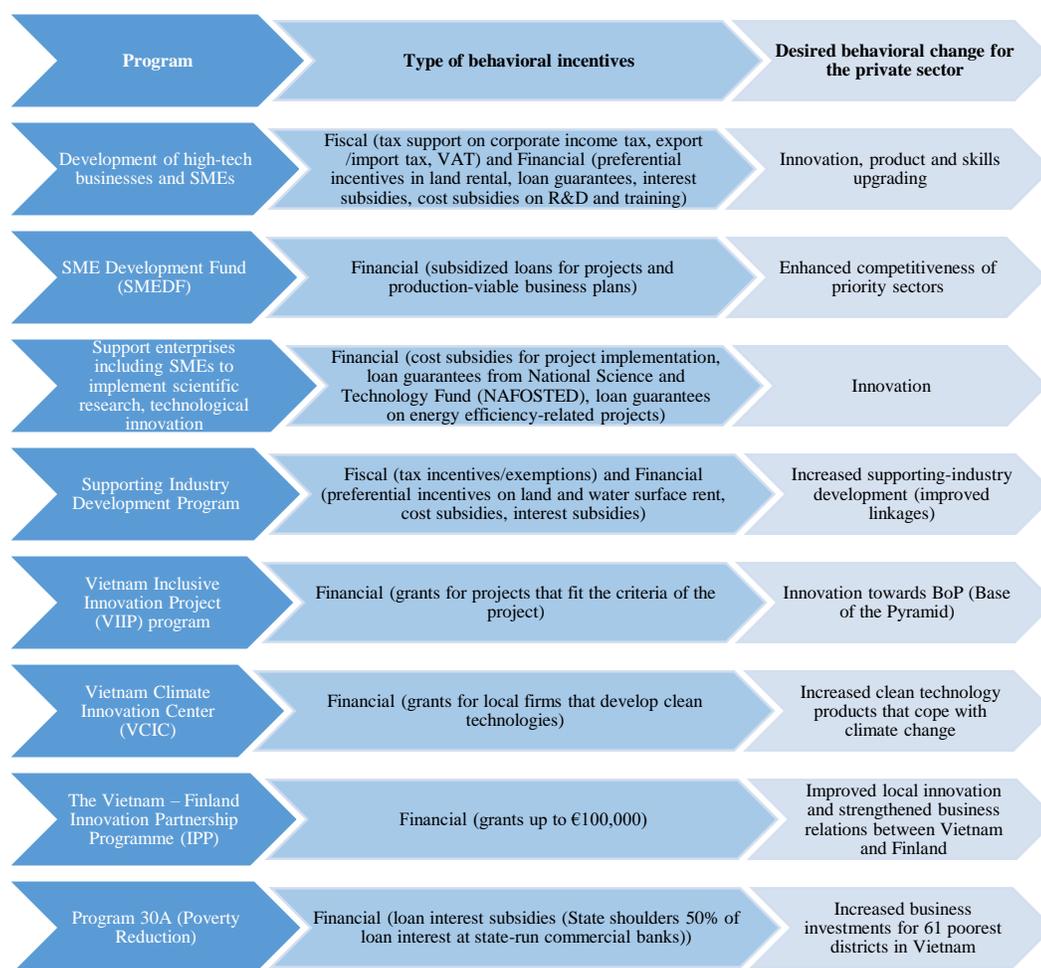
mandated online bidding, and has provisions for preferential treatment for SMEs to participate in bidding processes for consulting services and construction and installation services (Article 14, Clause 3, section c). Overall, this program serves as an important step for SMEs to provide services to the government.

Design elements of the programs

Using Behavioral incentives to achieve program objectives

157. Of the 28 SME support programs, there are 8 programs that involve behavioral incentives for the private sector. Majority (5 out of 8) of programs with behavioral incentives have objectives related to technological innovation. Two programs focus on incentivizing firms in priority sectors (one of these programs specifically focuses on integrating FDI with the local economy through supporting industry development). One program targets increasing business opportunities in poor districts.
158. For support programs related to supporting industry, the desired behavioral goal for the target manufacturing firms is increased backward linkages from multinationals buyers to local suppliers. Fiscal incentives include tax incentives under the provisions of Law 71/2014/QH13 and tax exemptions from import tax on goods used for fixed assets. Financial incentives include the following: cost subsidies amounting up to 50% of R&D spending for pilot production projects in the Supporting Industry; cost subsidies of up to 75% of spending for technology transfer for material production projects using over 85% of raw domestic processing minerals; preferential incentives on land rental, land use, and water surface rent; cost subsidies related to spending on trademark registration, domestic/foreign exhibition fairs and market access; and interest subsidies (ability to get loans at investment credit interest rate from the investment credit fund of the State). Examples of incentives and type of behavioral change desired for the private sector can be found below.

Figure 39. SME support programs with Behavioral Incentives



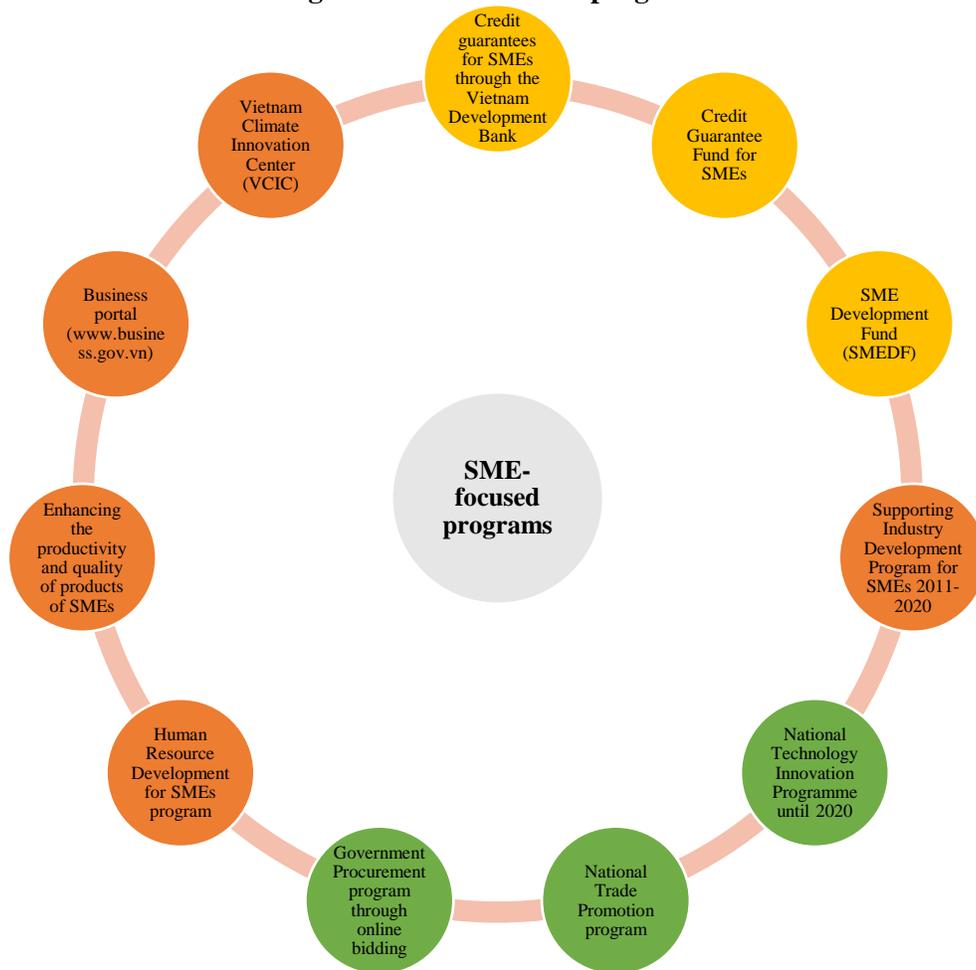
159. Mapping of SME support programs and policies using the behavioral incentives lens reveal that most of the support programs and incentive policies do not have clear behavioral incentives targeted for SMEs. Rather, the programs and policies target all firm types and include SMEs. This runs the risk of not meeting the desired behavioral change due to broad incentive structures that may not necessarily match SME needs and capabilities.

160. Also, there are behavioral objectives that are missing relative to identified constraints in Vietnam. One of the binding constraints found in this report relate to the lack of skills. However, only one program (High-tech development program) subsidize training costs incurred by the private sector. This suggests that incentive policies to boost skills have to be increased, especially for private sector-led specialized workforce trainings.

161. Finally, many firms (particularly SMEs) do not reap the benefits provided by these behavioral incentives due to lack of information disclosed by firms. This makes it difficult for government agencies to implement preferential policies applicable to SMEs. (This is also mentioned in the *Challenges* section.)

162. Most of the programs have an indirect focus on SMEs (i.e., all firm size-types are target clients of the program). There are only 8 SME support programs that have a direct focus on SMEs (i.e., SMEs are target clients of the program), of which 3 programs are focused on increasing access to finance (in yellow). Nonetheless, 3 programs have showed preference for SMEs despite targeting all firm size-types (in green). These programs’ preference for SMEs is evident in how (a) the program has SME-specific targets (National Technology Innovation Program until 2020), (b) majority of program recipients (90% in 2012) are SMEs (National Trade Promotion program), or that (c) the program has an explicitly stated preference for SMEs (Government Procurement program through public bidding).

Figure 40. SME-focused programs

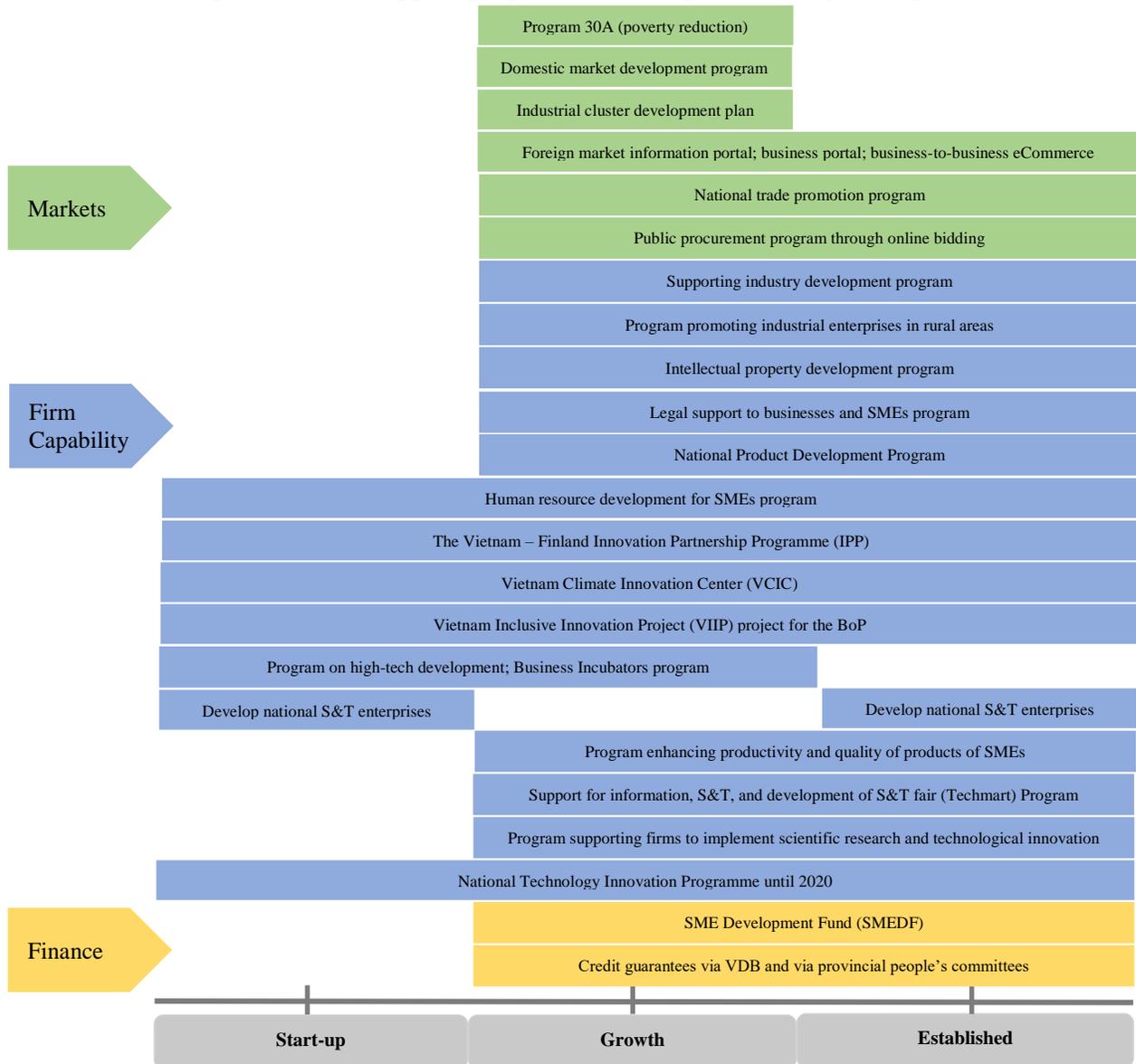


163. Further distinguishing SME support programs according to the **life cycle stages** of firms (i.e., start-up, growth, and established/developed), Figure 41 shows that SME support programs are mainly focused on the growth and established stages. Among the 28 SME support programs, only 8 programs include the start-up stage in their program activities. These start-up-related programs primarily focused on increasing firm capability in innovation and

developing the high-tech sectors. There are neither SME support programs on financial access⁹² nor market access for start-up firms.

164. SME support programs also overwhelmingly focus on the growth and established stages. Yet, there are critical support programs related to enhancing firm capability for the growth and established stages that are lacking. This include trainings related to enhancing global managerial skills, mentorship programs (e.g., linking Vietnamese overseas with locals), and business development services.

Figure 41. SME support programs according to the life cycle stages



⁹² Some of the access to finance programs for start-up firms can be implemented, such as crowdfunding platforms, seed/start-up funds, and angel investor networks.

Program timeline and budgets

165. Analysis of the plans of the SME support programs show that many of program implementation budgets do not seem to be incorporated in the design phase. Just over half (14 out of 26) of the ‘currently operational’ SME support programs have either pre-specified budgets or are found to be ‘budgeted annually’. A similar observation can also be said for program policies (or regulations): 3 out of 5 policies have either a predetermined policy support budget or is ‘budgeted annually’.
166. For programs/policies that are ‘budgeted annually’, this suggests that funding amounts are variable and are thus vulnerable to various types of risks, including political risks, budget risks, and implementation risks. For example, the ‘Encouragement of SMEs and businesses to invest in agriculture and rural development’ policy is powered by annual budgets of various provincial authorities. On the flip side, programs that are ‘budgeted annually’ meant that lagging programs can be weeded out and resources can be directed into more successful programs (This however is contingent upon having robust M&E plans and implementing guidelines to support the creation of feedback loops that help policymakers in their budget allocation decision-making processes for the next fiscal cycle.).
167. Many of the SME support programs and policies (i.e., 10 programs and 3 policies) do not have time limits. Even for programs with pre-determined budgets, it is not clear how the programs can be sustained given limited budget sources and an unlimited program time frame. Budget sources mostly come from central state budget, with some coming from local sources such as the provincial authorities. A handful of programs’ budgets come from ODA of other government counterparts and technical assistances of international organizations such as the World Bank and JICA. Generally, where there is involvement of other ministries and provincial authorities, these agencies also share budget costs.
168. Even for programs with a limited time frame, the question on sustainability also arises. It is not clear as to whether there are transition programs that SME program recipients can be linked into when a program finishes. Moreover, there is high budget dependence on foreign aid. SME support programs have historically stopped to be implemented when aid funds cease to be channeled into the program.

Monitoring and Evaluation

169. Implementation of the SME support programs can be assessed according to outputs and outcomes (vis-à-vis targets). Output information can be revealed from annual activity reports and process evaluation assessments. Outcome information can be assessed through client feedback surveys, impact evaluation, or other M&E methods. Many of the SME support programs however have limited assessments, whether assessed independently or internally, and this makes it difficult to evaluate whether the programs are effective in terms of achieving intended outcomes/impacts.

170. About half of the programs and policies (currently in operation) do not have monitoring and evaluation plans (whether complete or incomplete), suggesting concerns related to lack of transparency. A complete M&E plan presents M&E guidelines as well as input-level, output-level, and outcome-level targets connected to the program. An incomplete M&E plan includes some of the M&E elements, such as having target indicators.
171. For those that at least have M&E-related target indicators in the design phase, there are issues, including:
- (i) **Lack of targets:** Many have intermediate targets only or outcome targets only (but only a handful has both). This poses concern on whether the intermediate targets have achieved the intended outcome (if there are no available outcome targets). Another concern is being able to monitor the outputs and identify lagging outputs that are hindering the achievement progress of the outcomes (if there are no available output targets).
 - (ii) **Mismatch in targets and outputs:** For example, the ‘Enhancing the productivity and quality of products of SMEs’ program targets to form 4,000 new national standards and guide 40,000 businesses on technological innovation. However, it is unclear how the reported intermediate outputs (e.g., trainings) have supported one of the targets: formation of new national standards. Also, it is unclear how the reported outputs supported the program’s outcome target of improving the contribution of TFP growth of GDP by 30% by 2015.
 - (iii) **Unmeasurable targets:** For example, the units used by the Intellectual Property Development program renders the targets unmeasurable. The targets of the program call for achieving 70% of the requirements in ‘X’ activity, such as an awareness raising activity. It is unclear what these ‘requirements’ are.
 - (iv) **Lack of criteria to identify a target output/outcome:** Even for those with M&E plans, it is not clear what criteria were used to define a ‘successful’ target. That is, a target can be too unrealistic that it is not achievable, or a target can be too easily achieved. For example, the Domestic Market Development Program has an objective of linking domestic sellers with domestic consumers through informational campaigns and construction of selling distribution points around the country. While the target output links well with the program objective, targets may be unrealistic (e.g., 100% of consumers and businesses know about the campaign by 2020) or lack a benchmark (e.g., 80% market share by local goods in traditional distributional channels in rural, mountainous, isolated, and remote locations). This 80% market share may easily be achieved or have already been achieved without the program due to the foreign market inaccessibility of the locations in the first place.
172. While majority of the SME support programs have output information (e.g., number of beneficiaries served, number of SME proposals approved), half of these have no pre-identified targets. Again, this makes the assessment on implementation processes difficult. Likewise, only 5 programs and policies have outcome information (e.g., whether program achieved objective/s such as number of jobs created, number of exports products produced, etc.).
173. As part of assessing SME support programs for this report, an SME survey was conducted in order to generate broad SME feedback on accessibility and usefulness of the SME support

programs. This survey found that there is demand for SME support programs: 70% of respondents have been searching for or have searched for programs and policies on SMEs during the last three years. Access to information about SME support programs in Vietnam seem to be relatively uncomplicated as 60% mentioned that they have no difficulties in acquiring information about SME support programs. Yet, for those with issues about getting SME program information, concerns include lack of knowledge about where to search for SME support programs (38%) and not knowing whether the firm is eligible to apply for these programs (44%)⁹³.

174. 55% of respondents who have searched for SME support programs thought that there are high application barriers in applying to these programs. They find that application requirements to such support programs are either ‘restrictive’ or ‘very restrictive’, implying that application procedures need to be made simpler to lower transaction costs for applying. This also suggests that there is a perception issue with regards to applying to SME support programs. Nonetheless, SME survey reveal that: Of those which have searched for SME support programs, 86% have been successful in applying to these support programs and about half of these programs are recently granted (i.e., in the past year). The proportion of successful applicants represents 62% of total respondents (including those who have not searched for programs). Among the grantees of the SME support programs, majority of information about the program were received from local authorities or agencies (79%), followed by informal networks such as family and friends (28%), and internet search by oneself (7%)⁹⁴.
175. 41% of program grantees however found difficulties related to accessing the SME support program even when their application was successful. Issues include: difficulties in fulfilling support acquisition requirements even after the application was successful (18%), delays in provision of support by the program agency (9%), and informal bribes asked by government officials even after the application was successful (3%), among others. Nonetheless, for program grantees, the SME support program was helpful in improving management/leadership skills (75%), improving workforce skills (71%), improving production processes (67%), and supplementing working capital (9%). A negligible 1% of program grantees found that SME support programs were not helpful at all.
176. 84% of total respondents mention that their business face difficulties currently. Difficulties include complying with tax or labor regulations, land acquisition, access to markets, capital, and/or technology (including branding), and hiring an educated work force. 95% of total respondents expect to obtain government support to address these difficulties. Among the support programs and policies sought by SMEs include fair competition with regards to regulation, trainings, and preferential treatment for SMEs.

⁹³ Multiple answers are allowed.

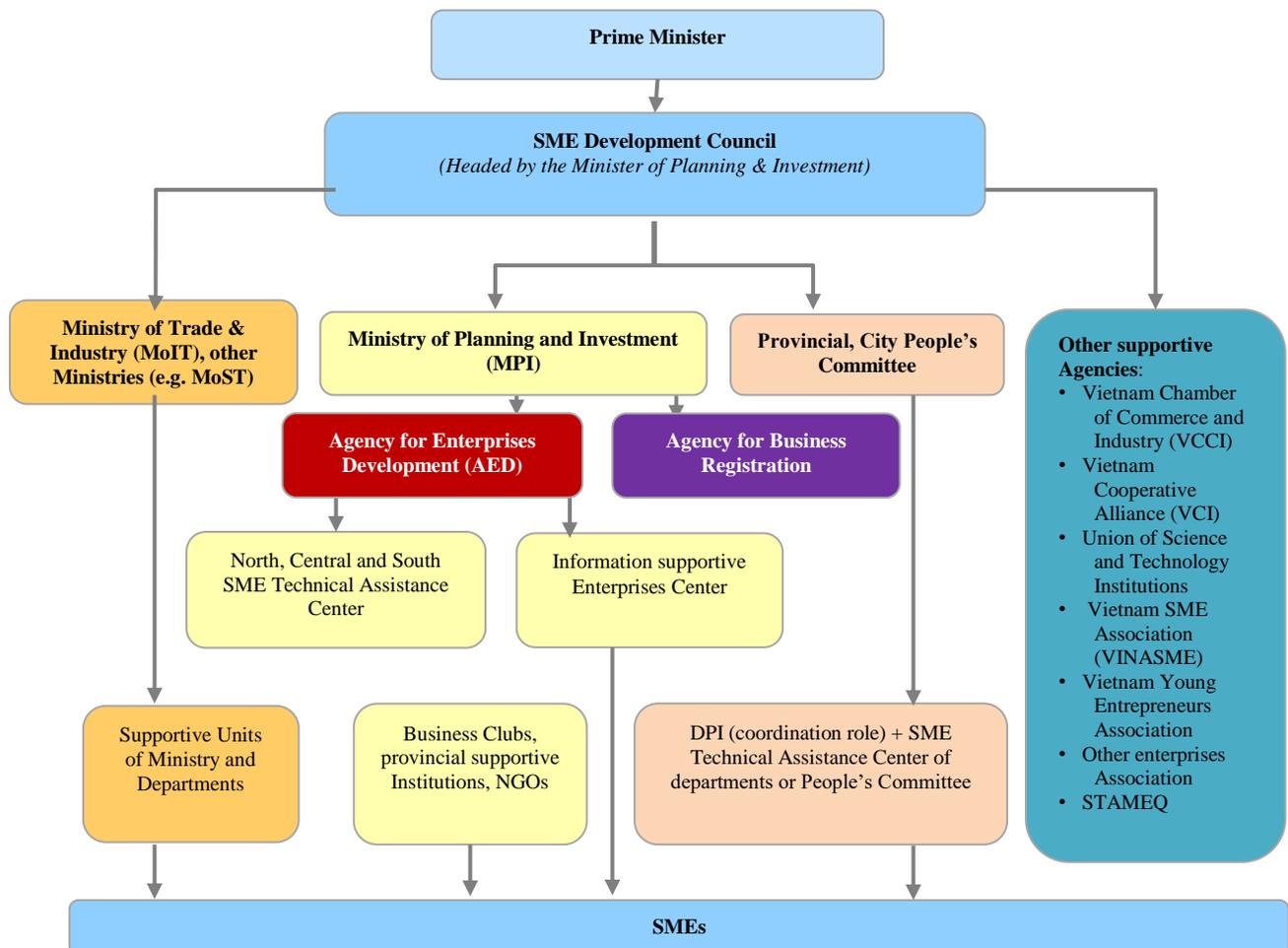
⁹⁴ Multiple answers are also allowed.

Implementing SME support programs: Stakeholder Involvement, Achieved Results, and Challenges

Stakeholder Involvement

177. The Government of Vietnam has set up the SME Development Council to advise the prime minister on the development of policies that support SME development. Headed by the Ministry of Planning and Investment (MPI), the council involves a broad range of stakeholders from the government, non-governmental institutions, and the private sector. The institutional structure and the different key players involved in SME development can be seen below.

Figure 42. SME Institutional Structure in Vietnam



Notes:

i. Other ministries and departments include the Ministry of Industry and Trade (MOIT), Ministry of Science and Technology (MOST), Ministry of Finance, Ministry of Justice, Ministry of Agriculture and Rural Development, Ministry of Construction, Ministry of Transport, Ministry of Natural Resources and Environment, Ministry of Education and Training, Ministry of Labor - War Invalids and Social Affairs (MOLISA), and Steering Committee for Enterprise Development and Reform.

ii. Provincial/city people's committees include Hanoi, Ho Chi Minh City, Hai Phong, Da Nang and Can Tho.

178. Amongst the different member ministries in the council, three ministries are actively involved in leading SME support programs, namely MOIT, MOST, and MPI. Each ministry is leading at least 7 SME support programs. Nevertheless, among the 28 programs in total, almost half of them involve other ministries. For example, the Supporting Industry Development Program is pioneered by the MOIT, but also involve MPI and MOST.

There is also some involvement by the provincial authority in state-led SME support programs, such as on programs related to supporting industry, credit access, intellectual property, and trade promotion. Involvement by universities and research institutes in state-led SME support programs primarily concern R&D and innovation projects; there is also an MPI-led Vietnam Inclusive Innovation project (VIIP) precisely aimed at strengthening university and private sector coordination in R&D and innovation.⁹⁵ Private sector involvement in state-led SME support programs however seems to be small and mostly focused on credit access, such as by commercial banks.

179. While not the focus of our mapping exercise, there are also some province-led, private sector-led, and university-led support programs applicable to SMEs. For example, provinces have set up promotion centers related to trade, investment, tourism and/or industrial promotion. Also, business associations such as Vietnam Chamber of Commerce and Industry (VCCI) and Vietnam SME association (VINASME) have their own initiated SME programs (e.g., trade promotion centers), apart from supporting state-led support programs and advocating for the interests of the business community, including SMEs. Similarly, some universities have their own SME support centers (e.g., National University of Technology) and business start-up support centers (e.g., National Economics University) and these centers themselves reach out to the private sector. Finally, there are also international organizations/donors and NGOs supporting SME development. These either involve funding support and technical assistance for state-led SME support projects (e.g. VCIC project) or NGO-initiated programs. Areas of support include business development, labor standards improvements, fair trade, and rural entrepreneurship.

180. The state-led SME support program listing below suggests that ministries lead on program topics where they have comparative advantages (or expertise). For example, MOST primarily focuses on product innovation using technology. MOIT focuses on enhancing the supporting industry and building industrial clusters (in light of promoting and expanding trade). MPI's programs are more diverse, and includes access to finance programs, information and training programs related to starting/operating businesses in Vietnam, and a public procurement program. There are however overlaps in the programs initiated by the ministries thereby reflecting fragmentation amongst ministries in program development (discussed in the *Challenges* section).

Achieved Results

181. For programs that have output and outcome information, the achievement of SME support programs is encouraging. Considerable strides can be found in government efforts to (i)

⁹⁵ This project, financed by the World Bank, is expected to be shortly closed. Another project which precisely aims at strengthening university and private sector coordination in R&D is MOST-led FIRST project.

increase credit access to SMEs, (ii) increase access to information such as legal information, (iii) promote industrial enterprises in rural areas, (iv) develop clean technology that address climate change, and (v) improve quality of products. An internal assessment by the Agency for Enterprise Development (AED) also found that about 50% of SME support policies achieved satisfactory feedback, particularly on programs related to access to finance, human resource development (business management skills), and access to information through trade promotion programs.

Table 3. SME support programs with information on outcome

Program	Timeline	Information on output	Information on outcome
Credit Guarantee Fund for SMEs	Since 2001; No limits	21 provinces have set up the fund; funds are assessed to be more effective in some provinces but not in others; there are capacity issues given high demand for fund; there are also SME complaints such as complicated procedures and stringent requirements to access the fund	Assessment shows that there are higher job creation rates and higher profits for firms which accessed the fund.
Legal Support to Businesses and SMEs	2010-2014	Among other outputs, law-related classes, workshops, and trainings summed to 82 in 2012 and involved 15,720 business owners	Feedback from business owners on effectivity of trainings and other information dissemination activities are largely positive (e.g., helped SMEs lower or avoid legal risks))
Promotion of industrial enterprises including SMEs in rural areas	2007-2012	Among other outputs, vocational training provided to 21,000 workers and 1,600 students in 2013; program supported over 200 industrial promotion projects in 2012	25.3% achieved in 2012 (despite the target of: industrial production accounting for 28-30% of rural production value by 2010)
Vietnam Innovation Center (VCIC)	2015 - 2018	Among other outputs, 18 projects awarded out of 300 proposals as per June 2017	Clean technology projects supported by the program saved energy and reduced carbon dioxide emissions (e.g., use of LED in the fishery sector)
Program enhancing productivity and quality of products of SMEs	2010-2020	9 conferences on standards were conducted in 2012 and 2013; 30 construction firms trained and guided in 2012-2013; quality management system ISO for over 300 SMEs implemented in 2013; 354 initiatives in technical improvements and improved 3S/5S production processes implemented in the last 3 years	No information on whether the target of improving the contribution of TFP growth of GDP by 30% by 2015 has been achieved; However, technical improvement coordination with JICA resulted to reduced production costs and improved productivity and product quality for participating firms

182. There is also modest institutionalization of state-led SME support programs at the provincial level. For example, Techmart programs are locally institutionalized as provincial authorities earmark budgets for these programs. Tax policies have also adapted to SME needs, in light of macro-economic situations, such as ability of SMEs to apply the 20% corporate income tax (CIT) rate from July 2013, half-year earlier than the implementation schedule of the amended CIT law.

Implementation Challenges

183. Despite considerable results achieved, challenges remain. We provide general implementation challenges and also provide examples of specific issues faced by SME support programs.
184. *Long program/policy development process:* In terms of the process of designing an SME support program/policy to actually implementing the program/policy, the time lag is quite long and can take between 2 and 3 years (in general). This is true for the National Technology Innovation Programme to 2020, National High Technology Development Program, and the National Product Development Program. SME Development Fund is reported to have taken over 3 years before approval was obtained. Given rapid changes in the SME landscape, the long time lag meant that the policies may no longer reflect the changing needs of SMEs.
185. *Overlaps in programs across ministries:* For example, MPI also has an innovation project, even though MOST have other innovation projects (albeit these projects have different respective focus). There are also overlaps in information-related programs: MOIT has its Foreign Market Information Portal, MOST has its Techmart program, MPI has its own business portal, and the Department of E-Commerce and Information Technology under MOIT has its eCommerce Platform (ECVN). While the objectives and target audience of these information websites may be different, there are similarities in the information provided.
186. These overlaps can be traced back to institutional failures to support SME program development (discussed in the next section). Ideally, SME needs are addressed through specific and holistic SME program packages that simultaneously address the different constraints that firms face (such as on financial access, information access, etc.). The new SME Law outlines the roles for each of the different ministries and places the responsibility of overseeing incubation services, commercialization of research and innovative activity under the Ministry of Science and technology. This clarity in the roles and responsibilities if implemented will increase the efficiency of the system that would be able to provide a more comprehensive support for SMEs without resources being spent on duplicating efforts through different implementing agencies.
187. *Fragmented support policies:* Policies that create an enabling environment to support SME development are largely fragmented and not SME-focused. For examples, tax incentive policies, business-licensing policies, competition policies, accounting standards policies, and land access and use policies are issued by different ministries, and in general, do not prioritize SMEs as the primary beneficiary of the policy.
188. *Limited implementation of SME support programs and policies at the provincial level:* While mapping of SME support programs initiated by provinces is not the focus of this report, one fact is that a significant proportion of provinces have not initiated SME support programs in their respective provinces, although there is modest participation in state-led programs. Moreover, about one-third of provinces do not have an approved provincial SME development plan (nor are there implementation progress reports on SME development submitted to MPI)⁹⁶.

⁹⁶ Report on the Implementation of the Decree No. 56 of the Ministry of Planning and Investment (2015).

189. *Limited scale and scope (e.g., small number of SME recipients) of state-led support programs:* This issue is faced by a number of programs, including ‘Support enterprises including SMEs to implement scientific research, technological innovation’ program, National Technology Innovation Programme until 2020, ‘Business Incubator’ program, and ‘Credit guarantee funds for SMEs’ program. For examples, the Business Incubator program have only 8 business incubators to date in Hanoi and Ho Chi Minh cities while 18 provincial funds of the ‘Credit guarantee funds for SMEs’ program are found to have limited guarantee values (reflecting a limited number of SMEs accessing the fund).
190. Limited number of recipients can be traced back to perception problems about application requirements (thereby hindering SMEs to apply) and implementation issues including SME experience of difficulties in accessing the program even when SMEs’ application to the program is successful (may discourage SMEs to apply in other programs)⁹⁷. Other implementation issues include lack of access to information about government-led support programs and policies, lack of specific guidelines to participate in these programs, complex requirements to participate, and mismatch in program content and SME needs⁹⁸.
191. For the ‘Credit Guarantee Fund for SMEs’ program, in particular, complaints include difficulties in accessing the program due to complicated procedures and stringent requirements to access the fund. The fund also suffers from capacity issues due to high demand for the program (and which credit guarantees (supply) cannot keep up with the pace of demand for the fund).
192. *Lack of value addition of some SME support programs:* Information support programs such as eCommerce platform (ECVN) and Foreign Market Information Portal provide general information to SMEs on these programs’ websites. Moreover, these informational websites are found to be difficult to navigate: websites are not well maintained, unfriendly to non-Vietnamese users, and that the user experienced technical issues when accessing the website. For programs with training-related components, contents of the training courses are non-specialized and do not reflect and adapt to the specific needs of SMEs, thereby reducing SME participation in such courses. Lack of value addition of these programs can be traced back to weak program design and content.

Why implementation challenges persist: underlying political environment

193. First, most SME support policies (for example 6/8 policy groups defined in Decree 56/2009 / ND-CP) are integrated into sectoral programs which are run by different line ministries. Accordingly, these programs are targeting a broad group of beneficiaries which SMEs are only one group. The design of many programs are not really suitable for SMEs, leading to the inability to evaluate the results of support for SMEs as well as the reduction of SMEs. Opportunity to participate / benefit from SME support policies is limited or are not made available to the wide number of SMEs.

⁹⁷ These issues were identified in the SME survey conducted as part of this report.

⁹⁸ Report on the Implementation of the Decree No. 56 of the Ministry of Planning and Investment (2015).

194. Second, some of the support policies are regulated under Decree 56/2009 / NĐ-CP. However, implementation of such policy is subject to Land Law, Law on Investment, Law on Credit Institutions, and Competition Law. Therefore, it is impossible to stipulate in detail the preferential policies for SMEs, thus hindering the implementation of the policies.
195. Third, the coordination between Ministries, government authorities at both central and local levels is weak. There is a serious lack of coordination mechanisms for SME development assistance. At present, almost every department / industry (both at the central and provincial levels) independently implement its own policies / programs (i.e., central level implements its own SME support program and the local level implements its own as well). There is a lack of linkage with other programs to focus on a key business group, and lack of focus on scaling up and spillover effects to other businesses. At the same time, reporting and information sharing mechanisms have not been implemented seriously and fully.
196. Fourth, the focal agencies to support SMEs may benefit from strengthened capacity building, and increased coordination. Under the provisions of Articles 15 and 18 of Decree 56/2009 / ND-CP, the Agency for Enterprise Development (AED) under the Ministry of Planning and Investment and local Departments of Planning and Investment have the functions and duties of State management on SME development assistance. The Department is also in charge of acting as a focal point in coordinating with concerned agencies in formulating programs and plans on assistance for the development of SMEs, submitting them to competent authorities for approval, promulgation and directing the implementation thereof. However, at present, only 16 out of 63 provinces and centrally-run cities have coordination units under the Department of Planning and Investment (DPI) to perform the function of supporting development of small and medium enterprises. Tasks related to SME development at the local level are assigned to different departments (e.g., Business Registration Offices, Branch Management Offices) to perform the functions and tasks mentioned above. There are currently only about 200 staff responsible for SME development assistance in these agencies. This is considered one of the main causes leading to weaknesses and shortcomings in the implementation of SME development assistance policies.
197. Fifth, the interest and investment of localities in SME development assistance is low while the central budget is limited. Most localities have not been proactive in allocating budgets to support SMEs, if any, and this is very limited compared to the high demand from the SME community (only 19% business support). Resource constraints are one of the causes of underdevelopment of the SME development program and limited scope of impact.
198. Finally, the weaknesses stem from SMEs internally. Information on the business is not sufficient. Reliability of SMEs is an issue. Low quality of financial information and reporting by enterprises and SMEs makes it difficult for the management agencies to implement the preferential policies and support for SMEs (e.g., taxation, credit). Capacity and vision of SMEs are limited. Most SMEs do not have a long-term development strategy. Therefore, awareness and interest of SMEs in innovation and competitiveness promotion programs are low.

Concluding Summary

111. This chapter focuses on the current programs and policies in place vis a vis the key binding constraints identified earlier. It highlights the scope for improvements – both in design and implementation – of these programs for increased effectiveness and impact. Following are some of the program design and implementation solutions addressing key systemic issues that pervade across programs which the government can implement as it updates its SME policy:

Program Design

199. *Consolidate overlapping programs:* Some of the SME support programs aim to achieve similar objectives but are initiated and implemented by different ministries. For example, there can be overlaps in innovation program trainings offered as a sub-program (or activity) by the various innovation-related and MOST-pioneered programs. Where programs have overlaps with another program, a corollary issue relates to targeting and selecting SME beneficiaries. As such, it would be important to analyze targeting and selection strategies of these different overlapping programs to avoid redundancy on program coverage and issues of under-coverage in other areas. In light of consolidating similar programs, a program can serve as a one-stop shop for addressing ‘X’ desired SME-related objective. SME-specific incentives can then be developed around that objective. Consolidating these programs also meant addressing overlaps in the functions of SME units of the different line ministries and agencies concerned with SME development.
200. *Identify missing SME support programs based on life cycle approach:* An analysis of the programs based on the life cycle stages of firms find that SMEs on the start-up stage are not fully benefitting from SME support programs. Programs focusing on this target group (and address their constraints) have to be considered (e.g., market access programs, financial access programs). Some of the ‘missing’ access to finance programs for start-up firms that can be implemented include crowdfunding platforms, seed/start-up funds, and angel investor networks. Even at the growth and established stages, some of the ‘missing’ critical support programs relate to enhancing firm capability, including trainings related to enhancing global managerial skills, mentorship programs (e.g., linking Vietnamese overseas with locals), and business development services.
201. *Ensure consistent M&E:* Many of the programs have M&E related target indicators. However as mentioned, there are issues such as incomplete identification of output and/or outcome targets, as well as lack of M&E implementation guidelines/plans. For targets, there should be clear intermediate/output targets and identified outcomes. As part of M&E, it is worthwhile to generate client feedback of SME support programs to understand whether SMEs find the programs useful and effective and to support improvement of program results. In general, a clear reporting/monitoring mechanism attached in the design phase of the program can ensure transparency, accountability and oversight.

Program Implementation

202. *Ensure sustainability of the programs:* Sustainability of the programs has to be ensured especially on the budget phase as well as on the implementation phase. On the budget phase, the key objective is decreasing dependence on central government/state support subsidies through other sources. Predictability of budgets has to also be ensured, especially on programs that are ‘budgeted annually’. There can be a threshold rule indicating how much a program’s budget can ‘decrease’ (all else equal). For programs dependent on foreign aid, transition (or graduation) of program beneficiaries have to also be considered to ensure holistic SME development. On the implementation phase, sustainability has to also be considered for programs without time limits. For programs with time limits, linkage of a certain program to other programs can be streamlined to ensure maximum impact for SME beneficiaries. The key is to understand how SME support programs complement other SME support programs.
203. *Increase private sector involvement:* Private sector involvement are mostly focused on financial access, such as partnerships with commercial banks. Public private partnership approaches can be considered in the design and implementation stages of the SME support programs. For example, successful private enterprises can be called upon to train and mentor other firms with high growth potential.
204. Moreover, business associations/industry associations can be tapped to increase involvement of the private sector as a whole. Its roles in the SME community can be made more profound by promoting business associations as a link (i) between ministries and SMEs in support programs and policy development and implementation and (ii) between firms themselves to collaborate in business production and complementary resource sharing processes. Business associations can also develop strategic thinking programs that change firms’ short-term business thinking towards a longer-term mindset (which can be reflected in firms’ respective business strategies, such as focus on key business lines/strengths and higher propensities to invest in innovation). Capacities of business/industry associations can thus be improved to help associations assume these roles.
205. *Improve the program development and implementation processes of the 5-year SME Development Plan:* This can be done by strengthening the coordination role of the SME Development Council in directing ministries, sectors, provinces and business associations (i.e., members of the council) to implement holistic and targeted SME support programs. Strengthening SME Development Council’s coordination role may also reduce overlap in SME support programs.
206. *Promote SME consultation channels in the development and implementation of SME support policies:* In order to increase access to information on incentives applicable to SMEs, GoV can facilitate and support business associations to participate in the implementation of SME support policies.

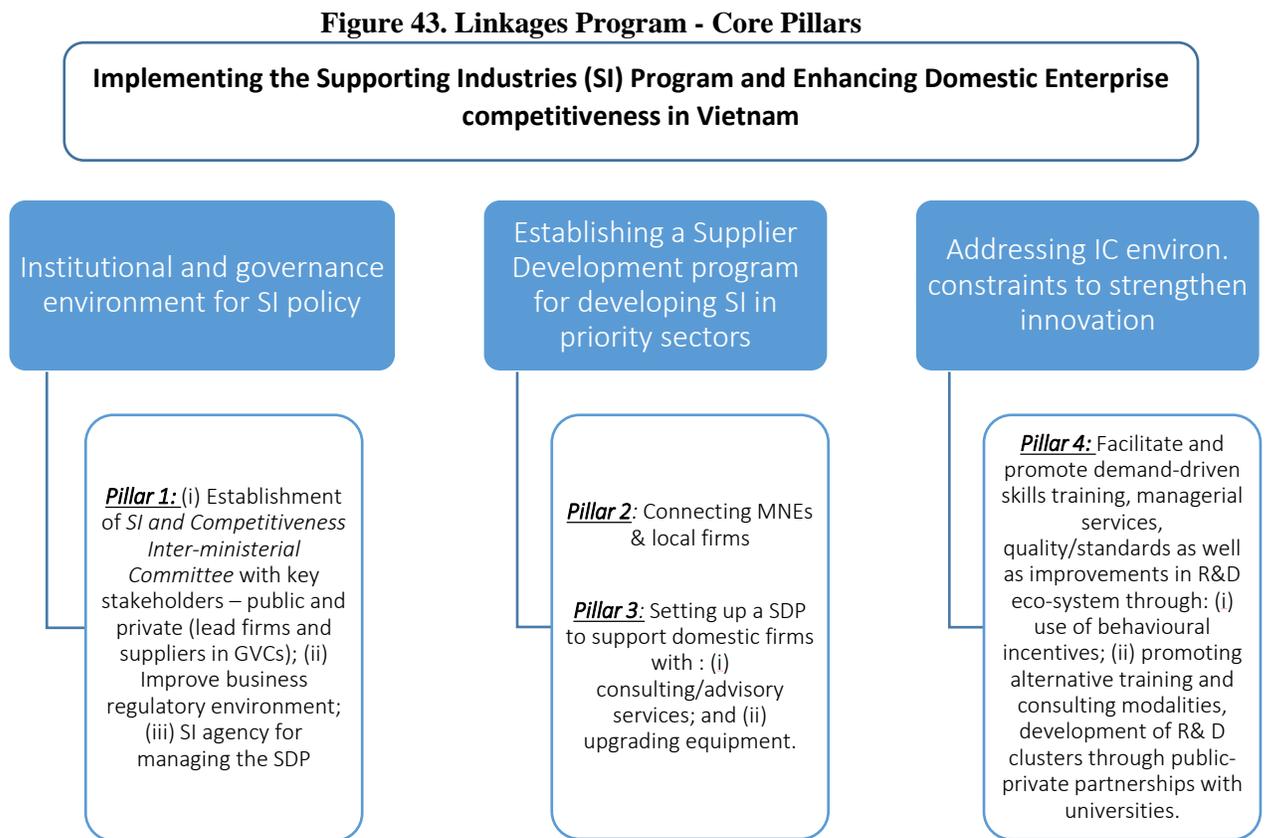
Chapter 5: Roadmap for Implementing the Supporting Industries Program and Strengthening SME Competitiveness

207. The concluding chapter offers a roadmap for facilitating linkages and strengthening domestic private sector in Vietnam. The recommendations are anchored in the Government's priorities and programs, primarily the Supporting Industries (SI) program policy framework. As the analytical findings underscore, the operationalization of the linkage program can act as a powerful catalyst for reforms in the enabling environment to help strengthen the competitiveness and capabilities of SMEs. The key messages emerging from the review of existing SME programs can also help inform the SME policy implementation once it is finalized and approved. Drawing on lessons from international countries and within Vietnam, it highlights the need for coordinated and complementary set of policies and institutions for achieving success.
208. Successful bottom-up and market-based linkages solutions from within Vietnam nonetheless can be highlighted, and further suggests the importance of (i) private sector involvement in the government's linkage agenda as well as (ii) encouraging the proliferation of effective private sector solutions that complement the government's programs. Existing public sector constraints further justify the value of both of these private sector roles. Public sector and private sector approaches on linkages are compatible, as they have the same objective of helping firms overcome binding constraints. Early successes of private sector solutions within Vietnam, such as the cases of *Thanh Long Electronics Production Company* and *Tam Hop Company* in the electronics and automotive sectors, showed that Vietnamese firms were able to address supply-side constraints through the support of FDI-Tier 1 suppliers, although some also require technical assistances from development partners and quasi-governmental organizations and took a long time for linkage to materialize. Overall, private sector approaches remain valid and substantially important in achieving the linkage objective. However, the challenge of lack of successful domestic companies that have integrated into the GVCs suggests that a more organized policy roadmap to achieve the linkages agenda is needed.
209. The recommendations offered below are presented in two parts. The first section highlights the key pillars for the operationalization of the SI program in Vietnam. The second section proposes measures that can be undertaken to tackle the key constraints in the enabling environment that are holding back domestic private sector's competitiveness as well as impacting linkage development opportunities.

Recommendations

Part I: Operationalizing the SI linkage policy framework in Vietnam

210. Drawing on international experience, the study recommends the following pillars of support for implementing the SI program in Vietnam (Figure 43).



211. *Pillar 1- Institutional and Policy Environment for linkages:* The aim of this pillar is to strengthen and streamline the governance and institutional arrangements for SI policy and linkage program implementation. Encouragingly, the recent approval of the SI policy framework underscores the priority placed on this agenda by the Government. In addition, MoIT has been assigned as the lead agency responsible for implementing the SI agenda. Specifically, the Department of Industry – under MoIT - is in charge of formulation and implementation of support policies and programs and recognizes the need for a dedicated program for development of suppliers in Vietnam.

212. At same time, there is a lack of coordination among government institutions with regard to policies and programs to improve the business environment for SMEs and supporting industries. As the discussion in *Chapter 4* has indicated, the current provision of business development support services is weakened by being fragmented across ministries. For instance, separate regional TAC Assistance Centers for SMEs (MPI) and Centers for SI Development (MoIT) provide training courses, direct development support for companies using international experts, and seeking to promote international business linkages through organizing visits overseas. The new SME law promises wide-ranging support for all SMEs, with targeted programs for start-ups, formalization of household enterprises and SMEs to become part of GVCs. Thus there remains risk of overlap in some programs. To mitigate this risk and strengthen coordination, the study recommends:

- Setting up an “*Inter-ministerial Committee on Supporting Industry Development,*” to strengthen the coordinating mechanism, and influence relevant stakeholders across boundaries for policy coherence and reform in cross-cutting areas. Specifically, the Committee would work across government agencies (i.e. MPI, MoST, provincial agencies etc.) to streamline roles and responsibilities among government agencies to address key constraints in the enabling and regulatory environment that may impact linkages. It would also coordinate the effective and demand-driven delivery of the BDS across agencies. Lastly, it would engage with businesses especially MNEs and private sector industries/associations in planning and implementing the SDPs in strategic GVCs. The proposed Inter-ministerial Committee would serve a focused agenda on linkage development. It would coordinate closely with the SME Development Council that has a broader oversight of SME development while for SI development the modality of support needs to be targeted to specific sectors and strongly linked to OEM/Buyers. The secretariat can be hosted by the soon-to be established Supporting Division under the Industry agency of MOIT.
- *Private sector membership in the committee.* Lessons from outside Vietnam and within it indicates the importance of involving the private sector (as a critical actor) in institutionalizing the linkage agenda and addressing related constraints. The public-private partnership model in Penang (Malaysia) for skills provision, whereby private sector (MNEs and domestic firms) and academia sit on the Board of Penang Skills Development Center (a vocational training initiative created by the Penang Development Corporation) is found to be critical in achieving the skills objective supporting the linkages agenda. Chile had both successful public and private linkages solutions—therefore private sector membership in the committee will be instrumental in developing complementary and coordinated private sector solutions supporting the linkage agenda. Moreover, the actual service providers to SME linkages are business development organizations such as the Supporting Industry Development Centers in Hanoi and Ho Chi Minh City and business associations such as Vietnam Supporting Industry Association (VASI), for examples, indicating the significant role that the private sector plays in the provision of assistances.

- *Greater autonomy and capacity-building of the lead agency.* The Government has already identified the former Department of Heavy industry, which is now a part of the newly established Industry Agency, as the lead agency given the focus of linkages in the manufacturing sector. Looking ahead it is important that this agency receives greater autonomy and that its capacity to manage the complex SI agenda is strengthened. The new Industry Agency is expected to have more autonomy in terms of setting its own agenda and budget. The scope for strengthening the technical and operational capacity of this agency is significant as it takes on the management of the supplier development program (SDP), and also functions as the technical arm of the Committee.

213. *Pillar 2 - Connecting MNEs and local firms:* As discussed earlier, connecting MNEs/lead firms with domestic firms in Vietnam is a critical element for the success of the SI program. While information gaps exist in both directions, lack of information is more a binding supply-side problem and less of a buyer's issue. That is, local firms need to first understand their technology and skills gaps and QCD standards in order to start upgrading. International experience suggest that this can be done through 'Meet the Buyer' events or suppliers' forum, where potential suppliers can learn about procurement requirements of lead firm-buyers. Local experience also has similar endeavors, such as annual trade fairs and exhibitions (see *Chapter 4*), although the scale and scope of these programs, as well as their effectiveness varies. There is also a need to reduce search costs for foreign firms. Currently information on suppliers is fragmented, not regularly updated and held in various national and local databases, making the quality of information variable. Also, current databases do not allow for a measure that incorporates reputation-building among suppliers, making it difficult for 'improving' suppliers to be recognized by MNEs. The aim of this pillar therefore is to organize informational events benefiting potential suppliers and to develop a high-quality national supplier database that allows suppliers to build their reputation - centered around priority sectors - and available online. In addition, building capacity mainly within MoIT to implement effective business-to-business (B2B) match-making services will help foster productive linkages between high potential local suppliers and new or existing foreign investors in Vietnam.

214. While there are existing online platforms that address information and coordination failures in Vietnam (see *Chapter 4*), current platforms do not provide the adequate services needed, such as lack of specific information and lack of website maintenance. Nonetheless, synergies amongst platforms (including simplification) should be developed and duplication avoided when implementing this pillar.

215. *Pillar 3 - Setting up a supplier development program to upgrade local firms:* This pillar seeks to address the lack of competitiveness of local suppliers. In line with the SI framework, the objective is to design and implement a demand-driven Supplier Development Program (SDP) for upgrading local firms in sectors where potential for linkages has been identified. It highlights a package of vertical and horizontal support initiatives in specific sectors for the SDP - including specialized consulting services for improving managerial and technical skills,

machine upgradation, and meeting labor and environmental standards and certification - that upgrades domestic capabilities. This support can be provided through the use of behavioral incentives which can be targeted towards both local suppliers for upgrading, and to MNEs to encourage them to source locally or invest in supplier training and research and development (Figure 44). The range of instruments employed to make the local suppliers bankable can vary from direct support (e.g. matching grants) to indirect fiscal support through tax incentives. These incentives must be tied to firm performance, targeted and with sun-set clause and aimed at minimizing market distortions (e.g., possible crowding out of market-driven approach on

Figure 44. Behavioral Incentives Tools -Examples from Singapore

Incentives to MNEs	Incentives to local firms
<ul style="list-style-type: none"> • Research Incentive Scheme for Companies (RISC) <ul style="list-style-type: none"> • encourages the development of research and development capabilities and technologies through the support of projects in the areas of science and technology • Training Grant for Company (TGC) <ul style="list-style-type: none"> • encourages manpower capability development in applying new technologies, industrial skills and professional know-how through the support of training programmes for companies' employees. • Productivity Grant (PG) <ul style="list-style-type: none"> • encourages firm-level projects which aim at improvements to energy, water, land or labour efficiencies through transformation efforts to enhance companies' operations or involving adoption of technologies. 	<ul style="list-style-type: none"> • Capability Development Grant (CDG) <ul style="list-style-type: none"> • CDG up to 70% of costs (e.g., consultancy, training, certification and equipment costs) • large scale upgrading projects in areas such as increasing productivity, process improvement, product development and market access • Productivity and Innovation Credit (PIC) <ul style="list-style-type: none"> • 400% tax deductions up to \$400,000 or 60% cash pay out up to \$100,000, for investments in innovation and productivity improvements • The six activities covered under PIC include: <ul style="list-style-type: none"> • R&D • Registration of IPRs • Acquisition and in-licensing of IPRs • Acquisition or leasing of prescribed automation equipment • Training of employees • Approved design projects

Source: Promoting FDI Linkages and Domestic Value addition, T&C Global Practice, PPT, April 2017

linkages). When the support elapse, these Vietnamese suppliers should be able to continue growing with their anchor customers, and/or sell their products to new lead firms or global suppliers in Vietnam and elsewhere. The Committee for Support Industry Development could then tap these successful local tier 1 suppliers to help develop tier 2 suppliers. This path would involve a global tier 1 supplier replacing lead firms and platform leaders, working directly with the government to support the development of local tier 2 suppliers. These newly developed tier 2 suppliers could then work to develop tier 3 level suppliers.

216. National experience shows that most of the SME support programs and incentive policies in Vietnam do not have clear behavioral incentives targeted for SMEs (see Chapter 4). Therefore, any support provided in an SME linkages program need to be targeted and monitored to avoid a similar fate. Another way to minimize these distortionary impacts is asking firms to cover a portion of the technical assistance to signify commitment, such as costs related to product development and training. International experiences (e.g., Czech Republic, Chile) have incorporated this measure into their SDPs. A number of support

programs in Vietnam are now following this approach: companies have to pay for training fee, cover 50% of the cost of participation in trade fair abroad, or cover 30% cost of technical assistance to obtain certain certifications. Careful and sparing use of incentives can also minimize budget issues.

217. The Government has allocated funds to support the implementation of this program, albeit the scale is far more ambitious than the available resources. It may therefore be useful to start the program on a pilot basis, and raise additional resources building on success. International experience also shows success predicates on packaging integrated and complementary solutions for firms rather than piece meal efforts. It is neither skills nor match-making of sellers and buyers that will bring about impact but putting them altogether will.

WBG’s on-going support on linkages

218. At MoIT’s request, the World Bank has initiated a technical and advisory project for supporting the linkage agenda that includes, among other things, upgrading firm capacity through a pilot supplier development program; building a national high-quality on-line supplier database as well as building capacity mainly within MoIT to host and maintain such database and implement effective B2B match-making services to foster productive linkages between high potential local suppliers and new or existing foreign investors in Vietnam; and developing a new FDI strategy that would help attract a new generation of FDI; and capacity building within MoIT and related institutions (see Box). The approach being adopted in Vietnam is inspired by the Czech Republic model discussed earlier. As this is a pilot approach, an impact evaluation is being initiated in parallel to learn the lessons as the program is scaled up with time. Specifically, it can help identify if the choice of instruments is bearing results and areas where further improvements may be needed.

WBG Support: Vietnam Private Sector Project

Objective: improve the regulatory and business environment and enhance the ability of domestic suppliers to participate in value chains in targeted sectors. Focuses on two components:

- 1) Develop a FDI Strategy and Implementation Plan to attract next generation FDI, leading to improved FDI linkages
- 2) Facilitate FDI-SME linkages
 - (a) Strengthen linkage policy and supporting institutions
 - (b) Development of a quality and shared national supplier data-base
 - (c) Upgrade SME/local firms’ capacity through a pilot supplier development program

Source: IFC project Implementation Plan, June 2017

Part II: Objective: Strengthening Enabling environment for private sector competitiveness

219. *Pillar 4: Addressing binding constraints in enabling environment:* The key binding constraints in the enabling environment in Vietnam that cut across sectors relate to skills management capabilities, innovation, and standards. Enterprise survey findings, reported in *Chapter 2*, reinforce the importance of enhancing the competitiveness of Vietnamese firms if more linkages are to be established. While Vietnamese firms do innovate, it seems this

innovation appears to rarely relate to new products or technologies. Innovation also seems to rely on less investment in inputs and licensed knowledge than in some competing Asian countries, and there is scope to incentivize firms to dedicate more resources to R&D, the licensing of foreign technologies, etc.

220. As *Chapter 4* discussed, multiple SME programs already exist in Vietnam that try to address some of these horizontal constraints in the enabling environment. Thus the need for an Inter-ministerial Committee (Pillar 1) that effectively coordinates and facilitates the addressing of horizontal constraints, is paramount. However, the in-depth analysis indicated scope for improvements – both in design and implementation - of these programs for increased effectiveness and impact. Following are the key systemic issues that pervade across programs which the government can address as it finalizes the SME policy and gears up for implementation:

Program Design

221. *Consolidate overlapping programs:* Some of the SME support programs aim to achieve similar objectives but are initiated and implemented by different ministries. For example, there can be overlaps in innovation program trainings offered as a sub-program (or activity) by the various innovation-related and MOST-pioneered programs. Where programs have overlaps with another program, a corollary issue relates to targeting and selecting SME beneficiaries. As such, it would be important to analyze targeting and selection strategies of these different overlapping programs to avoid redundancy on program coverage and issues of under-coverage in other areas. SME-specific incentives can then be developed around that objective. Consolidating these programs also implies addressing overlaps in the functions of SME units of the different line ministries and agencies concerned with SME development.
222. *Identify missing SME support programs based on life cycle approach:* An analysis of the programs based on the life cycle stages of firms find that SMEs on the start-up stage are not fully benefitting from SME support programs. Programs focusing on this target group (and address their constraints) have to be considered (e.g., market access programs, financial access programs). Some of the ‘missing’ access to finance programs for start-up firms that can be implemented include crowdfunding platforms, seed/start-up funds, and angel investor networks. Even at the growth and established stages, some of the ‘missing’ critical support programs relate to enhancing firm capability, including trainings related to enhancing global managerial skills, mentorship programs (e.g., linking Vietnamese overseas with locals), and business development services.
223. *Ensure consistent M&E:* Many of the programs have M&E related target indicators. However as mentioned, there are issues such as incomplete identification of output and/or outcome targets, as well as lack of M&E implementation guidelines/plans. For targets, there should be clear intermediate/output targets and identified outcomes. As part of M&E, it is worthwhile to generate client feedback of SME support programs to understand whether SMEs find the programs useful and effective and to support improvement of program results. In general, a clear reporting/monitoring mechanism attached in the design phase of the program can ensure transparency, accountability and oversight.

Program Implementation

224. *Ensure sustainability of the programs:* Sustainability of the programs has to be ensured especially on the budget phase as well as on the implementation phase. On the budget phase, the key objective is decreasing dependence on central government/state support subsidies through other sources. Predictability of budgets has to also be ensured, especially on programs that are ‘budgeted annually’.
225. *Increase private sector involvement:* Private sector involvement are mostly focused on financial access, such as partnerships with commercial banks. Public private partnership approaches can be considered in the design and implementation stages of the SME business development support programs. Strengthening alternative training modalities, namely on-the-job training and IT-based training can be undertaken. Vouchers for employers to send their employees to training courses (public or private) or tax rebates to companies with certified in-house training programs have been successful in many countries.
226. *Improve the program development and implementation processes of the 5-year SME Development Plan:* This can be done by strengthening the coordination role of the SME Development Council in directing ministries, sectors, provinces and business associations (i.e., members of the council) to implement holistic and targeted SME support programs. Strengthening SME Development Council’s coordination role may also reduce overlap in SME support programs.

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Annex 1.1. Summary of recent studies about the competitiveness of the Vietnamese private sector

Several important studies have been carried out on the Vietnamese private sector in recent years, which together provide a rich knowledge base for the present analysis.

In particular, the report “Vietnam 2035” (World Bank and MPI 2016) analyzed at length the challenges and opportunities related to firm productivity, global value chains (GVCs) and innovation:

- *Productivity growth:* The report contrasts the rapid within-sector labor productivity and TFP growth of the 1990s, triggered by the *Doi Moi* market reforms and removal of various economic distortions, with the broad-based declining trend since then. It argues that GDP growth was only maintained throughout the 2000s thanks to forces which are likely to reach their natural limits, namely the accumulation of capital and labor as well as structural transformation. The report further explains that private firms have not been immune from this trend and have seen their labor and asset productivity growth gradually decline to the level of state-owned enterprises (SOEs) and far below their Chinese peers. The Vietnamese private sector is showed to be fragmented between a majority of small and largely informal firms, which have become increasingly capital intensive but lack economies of scale and thus suffer from declining asset productivity, and a small number of large firms, which do not fare better than SMEs in terms of labor/asset productivity. Two main factors are emphasized as driving this low-level equilibrium, namely: (i) the gradual “commercialization” of state institutions and the granting of various privileges to SOEs, foreign-owned and a few connected domestic firms (e.g. taxes, public procurement, access to land and finance); and (ii) the failure to remove fundamental constraints in the general business environment and to build critical market institutions and guarantee key elements, such as property rights and competition, inhibiting the formalization of small firms and the emergence of large competitive ones.
- *Global value chains:* The report argues Vietnam has strongly benefited from its insertion in GVCs thanks to trade and investment liberalization, but that the predominant model remains FDI-led and focused on import-dependent final-stage assembly tasks, with limited backward linkages. Meeting productivity and GDP growth targets will thus require improving local firms’ capacities and fostering linkages, technology transfers and knowledge spillovers. The two key constraints emphasized are: (i) the limited absorptive capacity of local SMEs and lack of potential suppliers able to conform to MNCs’ quality and reliability standards, (ii) the poor performances of key services sectors needed by manufacturers (e.g. finance, telecom, power, logistics) and need to deepen reforms in those sectors.
- *Innovation:* The report argues that the weakness of the Vietnamese innovation system (e.g. low and ineffective public and private R&D efforts, poor capacity to adopt existing technologies, weak IPRs or financing for innovation) hampers productivity and growth, and that neither companies nor education and research institutions are currently geared to a major push on this agenda. Four foundations for an innovation-led economy are put forward: (i) raising the firm’s demand for knowledge, mainly by increasing the competitive pressures under which they operate, (ii) improve firms’ capacity for technology absorption, including through more effective programs to improve managerial practices and innovation efforts, (iii) improve the quantity, quality and relevance of

public research, and (iv) continuously enhance labor force skills through increased responsiveness and dynamism in tertiary education⁹⁹.

- *Other:* Several other relevant issues are discussed in the report, including (i) the need to support urban and industrial densification¹⁰⁰, as well as connectivity, and (ii) the constraints posed by remaining weaknesses on specific dimensions of governance, including regulatory quality.

The report “Vietnam at a Crossroads” (World Bank 2016) deepens the analysis of the determinants of Vietnam’s participation in GVCs and constraints to its upgrading. It argues that structural transformation and capital accumulation considerably boosted Vietnam’s export competitiveness since the 1990s. While domestic value added exported grew fast, particularly in sectors such as automotive, electronics, agribusiness and apparel, foreign (imported) value added embodied in Vietnam’s gross exports grew as a share of gross exports from 20.9 to 36.3 percent between 1995 and 2011. Backward linkages have remained weak, as most of the growth in domestic value added exported came directly from export activities, dominated by foreign firms, rather than indirectly through domestic inputs. One specific area of weakness pointed out by the report is the low share of services in value added of exports, although higher value added segments of GVCs are often rich in services content. The report identifies priority areas for policy interventions to maximize the benefits from GVCs, including improving market institutions and backbone services, promoting linkages between foreign-owned and domestic firms, maximizing the latter’s absorptive potential and innovation capacity, and fostering skills development. One relevant chapter of the report by Aterido and Hallward-Driemeier uses census panel data for 2004-2012 to analyze the determinants of firm dynamics. It documents the large expansion of formal employment over this period, mostly driven by private firms with more than 20 employees, and shows that, while the largest firms still account for the majority of formal jobs, the employment structure has been shifting towards SMEs over time. This is seen as a sign of dynamism but leads to questions regarding SME’s capacity to exploit economies of scale and to grow their productivity and market shares. Further, the report distinguishes between SOEs, which tend to be large at entry and not grow much after, foreign-owned firms, which also tend to enter relatively large but continue to expand over time, and private domestic firms, which are small at entry and very rarely grow to become large. The analysis also contrasts the dynamism of firms in manufacturing with the lower growth of those in services sectors, especially outside of retail.

A biannual survey of domestically-owned manufacturing micro, small and medium enterprises conducted since 2005 by the Government and United Nations University sheds additional light on the characteristics and constraints faced by the Vietnamese private sector¹⁰¹. Among other results, the study finds that:

- Employment growth rate decreases in firm size and formal firms are larger contributors than informal one to the overall positive employment growth trend experienced between 2013 and 2015.
- A large movement from the informal to the formal sector between 2013 and 2015 is detected and linked to revised enterprise and investment laws which streamlined registration procedures.
- There are no significant differences in employment growth rate across provinces.

⁹⁹ For a more detailed analysis of innovation performances and policy framework in Vietnam with similar conclusions, see OECD and World Bank (2014).

¹⁰⁰ The report notably notes the high fragmentation of industrial parks, which are numerous and dispersed in almost all provinces throughout the country, with often occupancy rates below 50 percent.

¹⁰¹ The report prepared to analyze the results of the 2015 round used a sample of around 2,600 businesses, with panel information for over 2,000 of them (Brandt et al. 2016). It includes both formal and informal businesses, although the survey does not claim to be representative of the latter category.

- Labor productivity measured as sales and value added per employee is found to have increased in 2015 compared to previous rounds.
- Investment is positively correlated with firm size, but slightly fewer small and medium firms reported new investments in 2015 than in 2013. In a vast majority of cases, the main purpose of investments was to increase production capacity and, to a lower extent, replace old equipment, while investments to improve productivity and quality or introduce new products were rare. Only 3 percent of surveyed firms are found to have invested in R&D, human capital upgrading and patents.
- The propensity to resort to formal and external sources of finance grows with firm size. While access to finance is perceived by respondents to be the top business constraint, a result often found in firm surveys across the world, the proportion of firms citing this as their main constraint is found to have decreased from 45 percent in 2011 to 30 percent in 2013 and 24 percent in 2015. The study links low investments to credit constraints and argues that better designed credit lines for SMEs with improved guidance for applicants could help.
- Around 24 percent of surveyed firms reported having introduced new products in 2015, a significant increase compared to 2013. On the other hand, 13 percent of firms reported improvements to existing products, slightly less than in the previous survey. Although the direction of causality is not established, innovation is found to be correlated with firm size and rural location. Firms located in industrial parks are found to be more likely to improve existing products, but not to introduce new ones. Lack of capital and of market outlets are the first and second main reasons for not introducing new products.
- Less than 12 percent of surveyed firms produced more than one product and larger firms have a higher rate of product diversification.
- Medium firms are more likely than micro and small ones to introduce new technology, and the proportion of medium firms using new technology slightly increased from 15 to 16.5 percent between 2013 and 2015.
- While 16 percent of surveyed firms use transportation services, less than 2 percent use professional or business development services, which is nonetheless higher than in 2013.
- Larger and urban firms employ more professionals and are more likely to experience difficulties in hiring skilled workers, although the reasons behind this are not investigated (e.g. lack of skilled labor supply, lack of relevant skills, matching difficulties).
- Very few firms use quality or environmental standards, especially international ones, although compliance with standards is found to be positively correlated with various measures of firm performance.

Specifically, on the issue of linkages, Newman and co-authors (2015) used panel data from a government survey of 4,000 manufacturing firms in Vietnam to analyze whether FDI in this country has had positive or negative impacts on domestic firms' productivity through direct linkages and/or indirect spillovers. According to this data, 16 percent of private domestic firms report using inputs supplied by foreign-owned firms (forward linkages), and 26 percent of them report selling their output to FDI firms (backward linkages)¹⁰². These linkages are associated with technology transfers in half the cases for forward linkages and a third for backward linkages. The main results of the econometric analysis include:

- *Horizontal spillovers*: Consistent with the literature, there is no evidence of horizontal (i.e. within sector) productivity spillovers from FDI,

¹⁰² By contrast, 77 percent of foreign-owned firms report forward linkages with FDI and 70 percent report backward linkages.

- *Indirect backward spillovers:* There are positive indirect spillovers for domestic firms supplying inputs to downstream sectors with heavy foreign presence. Moreover, this effect is stronger for sectors with more joint ventures between foreign and domestic investors than fully foreign-owned firms. Some evidence is also found that positive spillovers from downstream FDI are associated with domestic firms expanding production into other sectors or changing sector altogether, consistent with previous studies finding that firms tend to switch into sectors where there are opportunities for productivity gains.
- *Direct backward linkages:* However, no evidence is found of productivity gains through direct backward linkages between FDI and domestic suppliers upstream.
- *Direct forward linkages:* In contrast, the results suggest that being directly linked to FDI suppliers upstream is an important source of productivity growth for domestic firms, although this does not seem to be the result of deliberate technology transfers. Possible channels mentioned include the higher quality of inputs produced by FDI firms or accompanying services for clients. Some evidence is also found that spillovers through direct forward linkages are stronger for domestic firms downstream which diversify their production, suggesting that purchasing inputs from FDI positively impacts the productivity of domestic firms to the extent that it pushes them to diversify their production.
- *Indirect forward spillovers:* Strong evidence is also found of negative indirect spillovers (i.e. not through direct supply chain linkages) from a dominance of FDI in upstream sectors on the productivity of downstream domestic firms. This is hypothesized to be caused by FDI firms gaining a dominant market position in upstream input sectors (e.g. machinery and equipment, electronics and electrical equipment), reducing competition and increasing prices, which decrease the profitability of domestic downstream producers.

Newman and coauthors conclude that, while there are indirect FDI spillovers, a large part of productivity gains come from direct linkages, particularly forward linkages, highlighting the value of policies to promote direct knowledge transfer between foreign-owned and domestic firms.

Annex 2.1. Logistic regression of product innovation

The table below present the results of logit regressions for which the dependent variable is a binary variable equal to 1 if a firm declared having introduced new or significantly improved products over the last three years and zero if otherwise. Coefficients are presented as odds ratios.

	(1)	(2)	(3)	(4)	(5)	(6)
Sector - retail services	0.618 (0.342)	0.609 (0.341)	0.496 (0.273)	0.701 (0.370)	0.755 (0.410)	0.550 (0.305)
Sector - other services	0.501** (0.148)	0.454*** (0.133)	0.461*** (0.138)	0.544** (0.162)	0.445** (0.141)	0.434*** (0.140)
Region - North Central area & Central coastal area	1.387 (0.522)	1.374 (0.532)	1.478 (0.579)	1.286 (0.557)	0.973 (0.422)	1.065 (0.463)
Region - South East	0.480** (0.166)	0.451** (0.143)	0.428*** (0.138)	0.367*** (0.122)	0.303*** (0.0962)	0.290*** (0.0951)
Region - Mekong River Delta	0.140*** (0.0559)	0.124*** (0.0523)	0.0835*** (0.0305)	0.143*** (0.0676)	0.121*** (0.0592)	0.0857*** (0.0340)
Size - medium	4.805*** (1.604)	5.282*** (1.726)	5.024*** (1.674)	4.003*** (1.362)	3.462*** (1.214)	3.635*** (1.294)
Size - large	4.270*** (1.477)	4.950*** (1.770)	4.279*** (1.655)	3.908*** (1.628)	3.205*** (1.332)	3.558*** (1.516)
Ownership – joint venture		25.55** (38.43)	16.35* (23.43)	19.68** (29.43)	14.04** (18.86)	14.05* (18.95)
Ownership – 100% foreign		0.262** (0.144)	0.198*** (0.120)	0.194*** (0.123)	0.232** (0.142)	0.213** (0.138)
R&D spending				5.795*** (1.891)	4.905*** (1.741)	5.422*** (1.985)
Training for employees					2.670*** (0.941)	2.676*** (0.973)
Exporter			1.859 (0.750)	1.990* (0.786)	1.641 (0.679)	1.704 (0.719)
Female top manager			1.043 (0.393)			1.239 (0.507)
Line of credit						1.429 (0.438)
Constant	0.312*** (0.0999)	0.318*** (0.104)	0.303*** (0.105)	0.223*** (0.0768)	0.241*** (0.0850)	0.130*** (0.0731)
Observations	963	962	953	956	950	928
F	9.351	8.931	9.823	8.115	7.859	8.016

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Annex 2.2. Econometric analysis of linkages: linkage determinants

The table below presents the results of probit regressions for which the dependent variable is a binary variable equal to 1 if it is a linked supplier-firm and zero if otherwise. Regressions control for firm age, firm size, sectoral fixed effects, and regional fixed effects (not presented for brevity). All predictors are held at their mean values.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
firms with loan or overdraft	-0.021 [0.018]											
firms competing against informal firms		0.023* [0.014]										
product innovation			0.026 [0.019]									
process innovation				0.041** [0.018]								
R&D					0.032 [0.020]							
formal training						0.048** [0.020]						
skilled production workers							0.127 [0.085]					
skilled workers								0.113 [0.097]				
use website									0.042*** [0.014]			
use email										0.039* [0.021]		
international certification											0.043 [0.032]	
uses technology licensed from foreign firms												0.009 [0.099]
size_medium	0.019 [0.019]	0.012 [0.020]	0.008 [0.021]	0.007 [0.017]	0.011 [0.020]	0.005 [0.016]	-0.032 [0.053]	-0.034 [0.055]	0.008 [0.013]	0.012 [0.020]	0.016 [0.019]	-0.025 [0.056]
size_large	-0.011 [0.017]	-0.020 [0.023]	-0.027 [0.026]	-0.019 [0.017]	-0.027 [0.023]	-0.031 [0.025]	-0.037 [0.059]	-0.081 [0.060]	-0.024 [0.017]	-0.026 [0.024]	-0.038 [0.033]	-0.080 [0.071]
age_medium	0.033	0.032	0.038	0.034	0.039	0.031*	0.137**	0.138**	0.025	0.035	0.033	0.160**

age_mature	[0.028] 0.083**	[0.027] 0.088**	[0.034] 0.086*	[0.023] 0.074**	[0.031] 0.088**	[0.017] 0.074***	[0.058] 0.229***	[0.057] 0.225**	[0.018] 0.058**	[0.028] 0.087**	[0.028] 0.079**	[0.071] 0.270***
food	[0.040] -0.034	[0.045] -0.038	[0.046] -0.045*	[0.030] -0.033*	[0.043] -0.043*	[0.028] -0.034*	[0.086] -0.115*	[0.088] -0.109*	[0.025] -0.030*	[0.044] -0.035	[0.038] -0.051**	[0.101] -0.156**
non-metallic mineral products	[0.023] -0.044*	[0.024] -0.047**	[0.025] -0.055**	[0.019] -0.040**	[0.026] -0.052**	[0.020] -0.038*	[0.066] -0.127**	[0.065] -0.119**	[0.017] -0.037**	[0.025] -0.049*	[0.025] -0.054**	[0.079] -0.152**
fabricated metal products	[0.025] -0.057*	[0.024] -0.063*	[0.026] -0.069**	[0.018] -0.049**	[0.026] -0.067**	[0.020] -0.053**	[0.062] -0.177**	[0.060] -0.174**	[0.018] -0.043**	[0.026] -0.065**	[0.027] -0.067**	[0.068] -0.200**
other manufacturing	[0.030] -0.057**	[0.033] -0.064**	[0.034] -0.067**	[0.023] -0.046**	[0.034] -0.062**	[0.026] -0.049**	[0.079] -0.142**	[0.077] -0.146**	[0.022] -0.051**	[0.032] -0.061**	[0.034] -0.063**	[0.086] -0.156**
retail	[0.025] -0.072**	[0.029] -0.076**	[0.031] -0.085**	[0.019] -0.068***	[0.028] -0.084**	[0.021] -0.073***	[0.058] [0.058]	[0.058] [0.058]	[0.021] -0.067**	[0.028] -0.079**	[0.029] -0.079**	[0.063] [0.063]
other services	[0.029] -0.072***	[0.030] -0.075***	[0.035] -0.083***	[0.025] -0.064***	[0.034] -0.08***	[0.027] -0.071***	[0.027] -0.094	[0.027] -0.094	[0.032] -0.065***	[0.032] -0.079***	[0.033] -0.082***	[0.060] -0.060
Observations	[0.020] 729	[0.020] 724	[0.022] 742	[0.018] 742	[0.022] 745	[0.020] 739	[0.079] 441	[0.076] 435	[0.019] 744	[0.022] 745	[0.023] 738	[0.096] 427

Standard errors (clustered at sampling strata) in brackets

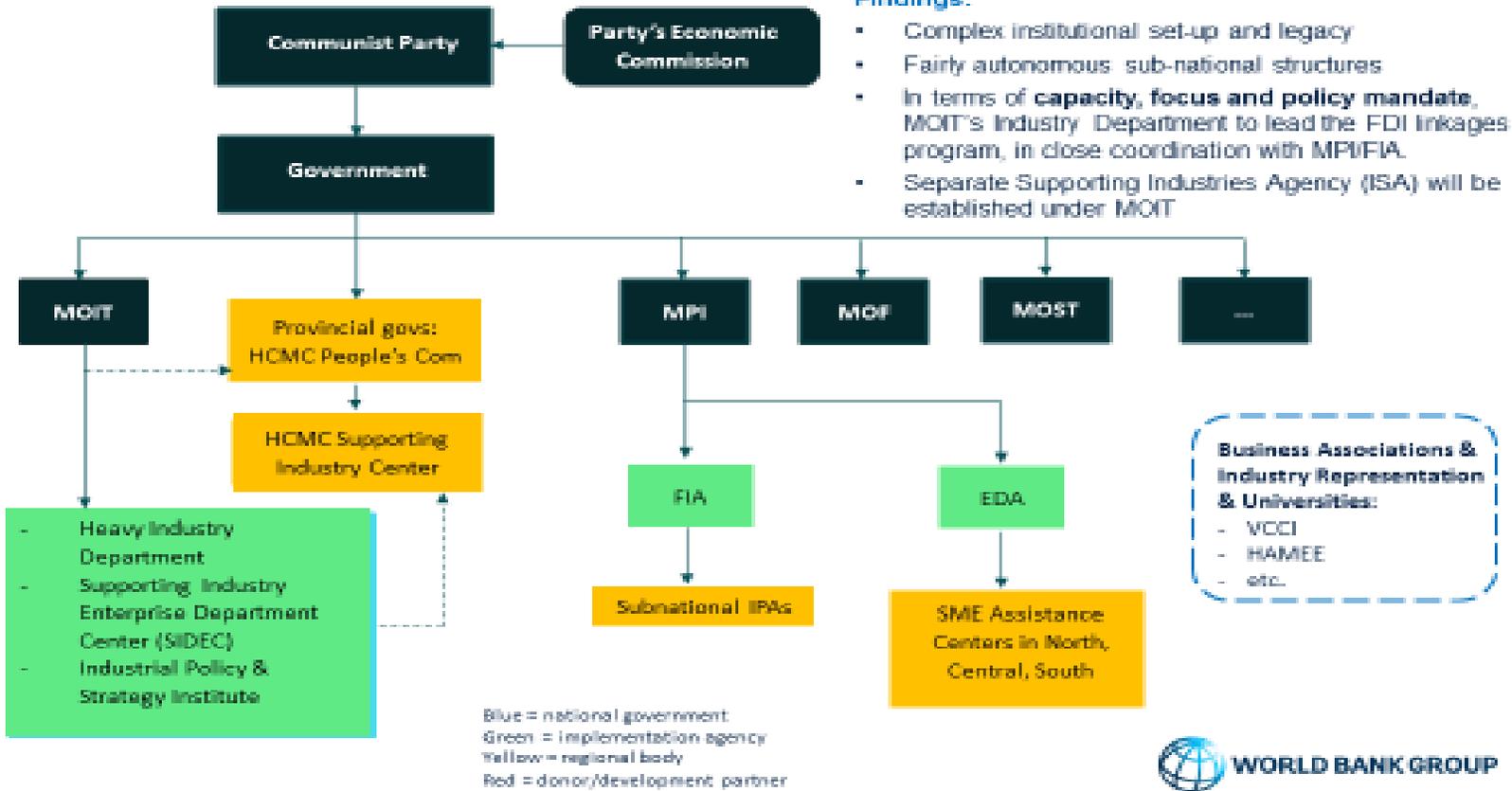
*** p<0.01, ** p<0.05, * p<0.1

Annex 3.1. International experience in developing linkage programs – summary highlights from Czech Republic, Malaysia, Chile and Costa Rica

		Czech Republic	Malaysia	Chile	Costa Rica
Overall impetus/motivation		Accession to the European Union	Strategic shift from import-substitution industrialization to export-oriented industrialization (focus on attracting manufacturing FDI)	Trade agreements created the need for suppliers which can meet international quality standards	Trade liberalization and increase in FDI
Institutional/governance set-up: Overarching structure for linkage programs		Headed by CzechInvest (investment promotion agency) under the Ministry of Industry and Trade	Headed by MIDA and SME Corp under the Ministry of International Trade and Industry	Government-led SDP (PDP) is headed by CORFO, Chile's Economic Development Agency	SDP headed by investment promotion agency PROCOMER
Key stakeholders – roles and processes		-MNC Steering Committee can nominate potential suppliers and advise on action plan (MNEs' purchasing managers also participate); -Potential suppliers can submit business proposals but need to invest management time to undergo business review process	-SMEs undergo a rigorous SCORE rating to participate in linkages programs; - Penang Development Corporation provides regional-level or sector-level support to increase FDIs; -Private sector (MNEs and domestic firms) and academia sits on the board of Penang Skills Development Center (vocational training initiative created by PDC)	-Along with CORFU, private sector also have their own complementary SDPs (e.g., World-Class Supplier Program in the mining industry)	-Public sector agencies such as Customs agency are involved in monitoring the program -Private sector entities are consulted to improve the program -Lack of coordination between CR Provee and complementary support programs remain
Enabling environment policies (Horizontal constraints)		Relatively strong labor market regulations	Relatively flexible labor market (no minimum wage until 2012); High-level committee created in 2008 to address regulatory burden on business (one of 2 constraints identified by WB as key growth constraints, besides skills shortage), such as improving customs procedures and speedier processing of expatriate work visas	Pro-competition economic reforms promoting nondiscrimination against foreign firms; Strong legal framework; Stable tax policies; Government focus on tertiary education	EPZ (export processing zone) laws were modified to increase linkage activities; Business registration procedures were reduced and approval days are shorter; but there are other investment climate concerns
Vertical interventions addressing supply-side constraints and market failures	Lack of access to finance	SDP indirectly addressed this: Positive business review results or contracts with MNCs increased credit worthiness of SMEs to Czech banks; advanced payment and financing was a top assistance provided by MNCs to suppliers during the pilot (2003 FIAS survey)	SMEs can access complementary financial support programs targeted for SMEs	ProPyme ("Pro-SME") Seal awarded to large firms which provide swift payment terms to SME-suppliers; complementary private sector financial support programs	No direct financing involved in the SDP
	Lack of information	Supplier databases maintained by CzechInvest and matchmaking services	Supplier database and matchmaking services	Sectoral level databases; industry exhibitions	Supply and demand data
	Lack of skills	Specialized trainings for potential suppliers	MNC-designed trainings	Specialized trainings depending on SME needs (e.g., private sector input in program design of courses to ensure relevance to business needs)	In-house training and consultancy services; private-sector partnership with universities in curriculum upgrading (e.g., Intel)
	Lack of competitive suppliers (quality and tech gap)	Consulting services (by local and international consultants) implemented through matching grants awarded to high-potential suppliers (95%)	-Behavioral tax incentives such as tax exemptions and investment tax allowance for SME suppliers for technological upgrading; and -Cost subsidies for MNCs	Cost sharing scheme between CORFO (Chile's Economic Development Agency) and MNC-buyers (mostly in the agribusiness sector) in PDP; private sector-	Not directly addressed, although there are other government innovation programs that suppliers can theoretically apply to (e.g., PROPYME)

		CzechInvest contribution, 5% firm contribution)		provided management consulting services (to increase domestic supplier capacity)	
	Coordination failure	Macro: Effective IPA (CzechInvest) coordinating various stakeholders (MNCs, SMEs, universities); Micro: matchmaking services between buyers and suppliers	Macro: Coordinating structures implemented at the national and regional levels (e.g., regional-level GLCs such as Penang Development Corporation, which provides industrial zone infrastructure, R&D, skills development, and tailored incentives to MNCs); Micro: matchmaking services between buyers and suppliers	Macro: Strong and effective collaboration between the government, private sector, NGOs and universities	Micro: Matchmaking services between buyers and suppliers
Results		-Evaluation of the pilot program found that \$46 million worth of new contracts (2000-03) were created with 15 suppliers; -2003 FIAS survey found that 59% of suppliers reported acquiring ISO standard certifications to supply to MNCs (50% reported increasing value added of products supplied to MNCs); 90% of MNCs reported sourcing from at least 1 Czech firm; Analytical results found higher productivity for suppliers to MNCs (versus non-suppliers)	-Domestic SME suppliers became popular local brands given increased sourcing by MNCs (e.g., Tesco); -Successful private sector involvement in skills development helped produce successful local SMEs (such as in the electronics sector) and attracted additional foreign investments (particularly in Penang)	-An IDB (2011) impact evaluation of the PDP found that the SDP was beneficial to both SME suppliers and large buyers; Impacts were found in terms of higher sales growth and employment growth	-An impact evaluation by Monge-González and Rodríguez-Álvarez (2013) found that participating firms in CR Provee have higher real average wages paid to employees, increased employment and a higher probability of exporting

Annex 4.1. Vietnam: Mapping institutional landscape for Supporting Industries (SI) lead agency & SME support agencies



Sources: Vietnam, IFC AS