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Working Paper

Connecting Cambodia's SMEs to regional value chains: The "bridging gap" and "missing link"

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ADBI Working Paper Series

CONNECTING CAMBODIA'S SMEs TO REGIONAL VALUE CHAINS: THE "BRIDGING GAP" AND "MISSING LINK"

Kha Sok, Runsinarith Phim, Socheat Keo, and Veara Kim

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Kha Sok is a research fellow at the Asian Vision Institute (AVI) in Phnom Penh. Runsinarith Phim is an economics lecturer at the National University of Management. Socheat Keo is a research consultant at the Cambodia Development Resource Institute (CDRI). Veara Kim is an economics lecturer at the Royal University of Phnom Penh (RUPP).

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Please contact the authors for information about this paper.

Email: sokkha.jk@gmail.com

Asian Development Bank Institute Kasumigaseki Building, 8th Floor 3-2-5 Kasumigaseki, Chiyoda-ku Tokyo 100-6008, Japan

Tel: +81-3-3593-5500 Fax: +81-3-3593-5571 URL: www.adbi.org E-mail: info@adbi.org

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Abstract

The vision of connecting Cambodia to regional and global value chains (GVCs) is not new but the result of decades-old strategic decisions about the future. Since the return to a market-oriented economy in 1989, Cambodia has pursued policies and reforms to integrate itself into the GVCs by modernizing its industrial structure. These efforts have brought domestic small and medium-sized enterprises (SMEs) into public policy attention. The term "connecting" implies the existence of "gaps" to be linked or bridged. Gaps exist in many forms at various levels of public and private sector capacity domains. This paper discusses the current situation of SMEs in Cambodia, identifies what has worked (the "bridging gap") and what has not (the "missing link") in terms of promoting their value chain participation, and argues that while the growing reform momentum is showing signs of narrowing certain gaps, our assessment highlights the remaining or even widening gaps that are the products of dissonant fundamental constraint issues facing SMEs. The paper also offers perspectives on (1) emerging lessons learned for successful GVC engagement, and (2) implications of the evolving world, i.e., the regional cooperation and integration landscape and dramatic development in digital technology, for Cambodia's path toward connecting the country's SMEs to the GVCs.

Keywords: regional and global value chains, GVC, Cambodia, SMEs, bridging gaps, missing links

JEL Classification: F140, F150, O530

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1. INTRODUCTION

Seven years ago, one of this paper's authors was engaged in an interview with an operations manager at Liwayway (Cambodia), the Cambodian subsidiary of the Philippines' Liwayway, the company behind the iconic Oishi snack foods brand and owner of other production plants throughout Asia, including the Philippines, Indonesia, Viet Nam, Thailand, Myanmar, India, and the People's Republic of China (PRC). The Cambodian factory commenced its operation at the end of 2012 in the Phnom Penh Special Economic Zone (PPSEZ), a Japanese-Cambodian joint venture and an ideal representative of the Japan-pioneered Special Economic Zones with great liberal business environments, effective administrative procedures, and efficient infrastructure capacity. The factory imported automated machinery and equipment from Viet Nam and the Philippines, employed hundreds of local workers, and produced different kinds of snack foods under the brand name Rinbee, which serves both domestic and overseas markets including Japan; the Republic of Korea; and Hong Kong, China; among others.

The decision to open a factory here is driven mostly by the firm's operation diversification program while taking advantage of Cambodia's proximity to the firm's plants in neiahborina countries. relatively inexpensive labor. pro-trade -investment government policies, and the increasingly connected region in Cambodia is located. The two main challenges facing Liwayway (Cambodia) were a lack of labor equipped with the right skills and difficulties in sourcing locally produced raw materials. Some middle managers and quality control positions were filled by Filipino expatriates. Although Cambodia is rich in agricultural products, the country's local producers were insufficiently equipped with appropriate technology and know-how for semi-processing and this presented challenges in filling the factory's demand needs. For example, Cambodia has palm nuts, but local producers lacked the refining technology to make edible palm oil. A lack of information about potential domestic partners also made any effort to connect with them challenging.

These challenges highlighted the insufficient integration of domestic business into GVCs. Against this contextual setting, this research aims to build a more comprehensive understanding of the status quo of SMEs in Cambodia and what has worked (the "bridging gap") and what has not (the "missing link") in terms of promoting their GVC participation.

The paper proceeds onward in five sections. The first presents our research methodology. The second highlights some of the key research in the existing literature. The third provides a situational overview of recent developments in the context of Cambodia's economy and SMEs, with particular emphasis on the constraint issues identified thus far in the literature and data, and illuminates where Cambodia stands regarding GVC participation. The fourth discusses findings. The last section concludes. The research tool and list of interviewed stakeholders are available on request.

2. RESEARCH METHODOLOGY

2.1 Analytical Framework

Figure 1 presents our analytical framework. The blue-shaded boxes represent the analytical boundary within which this paper conducts assessments, to find out the extent to which the "bridging gap" and "missing link" are attributable to Cambodia's public capacity domains in creating, and improving, an enabling environment for SMEs, and the

extent to which they are they attributed to SMEs' capacity to take advantage of an improved enabling environment and thus create a significant backward/forward linkage with firms abroad. The results of the "bridging gap" and "missing link" are manifested directly in the form of the orange box or through selected instruments illustrated by the black-outlined rectangles.

The research also offers perspectives on (1) emerging lessons learned for successful GVC engagement through two case studies, and (2) how this integration effort and process is affected by the growing uncertain regional and global environment, which is both inspiring and alarming, and thus illustrated with the dashed arrow lines.

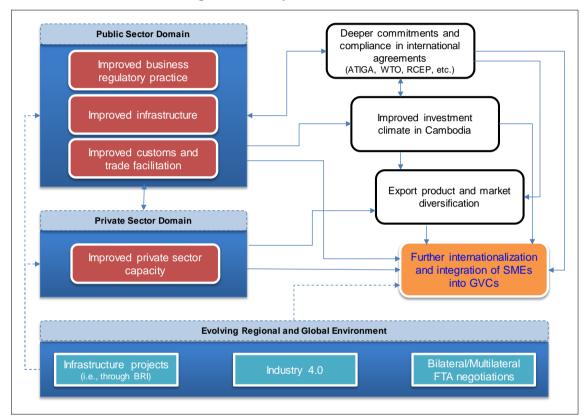


Figure 1: Analytical Framework

2.2 Research Methodology

This qualitative study relies on the authors' desk research, the World Bank's Enterprise Surveys (ES) and OECD-WTO Trade in Value-Added (TiVA) database, relevant economic and surveyed data, and interviews with five selected SMEs and 10 experts – in academia, think tanks, among practitioners, and government.

The desk research comprises: (1) a review of the secondary documentation including existing research, reports, and media; (2) a review of the institutional landscape, policy documents, legislative and regulatory frameworks, strategies, and incentives that aim to support the participation of SMEs in Cambodia in the GVCs; and (3) the authors' knowledge bank (e.g., hands-on experience in a broad range of research and government support projects in Cambodia).

The ES1 is a business-level survey of a representative sample of an economy's private sector. Its 2016 database is the latest version for Cambodia. It collects information about a country's business environment, covering various issues identified as the major business constraints by each of the 373 businesses participating in the survey. Among them were included the 131 businesses that also participated in the preceding survey in 2013. Thus, the database also allows for panel analysis in this study. The TiVA online database is more commonly used to assess the economy's participation in GVCs. TiVA is the outcome of an ongoing international effort to develop measures of trade in value added. TiVA indicators are published by the OECD and based on the 2018 release of the OECD's annual Inter-Country Input-Output (ICIO) tables, which cover the period 2005 to 2015.²

As for expert interviews, a research tool was developed using unstructured and open-ended questions. It is used as guidance for interviews to capture the information required by, and in line with, the analytical framework. Interviews were conducted in person and each lasted between 40 and 90 minutes, depending on the key informant and the amount and quality of information the informant could reveal. The researchers quided the discussions and asked questions relevant to the key informant's business background and knowledge.

3. LITERATURE REVIEW

A sizable body of research has examined the measurement of GVC participation. Among them, Hummels, Ishii, and Yi (2001) and Koopman et al. (2010) define GVC participation for a reference country according to when the country embeds its value added in exports both looking backward and forward. Backward participation happens when the country's domestic firms use foreign inputs for exporting activities. Forward participation happens when the country's exports are used as inputs by firms in partner countries for their own exports. Kowalski et al. (2015) provide a good contextual analysis on GVC participation and policy context in developing countries.

In the ASEAN context, the ASEAN-Japan Centre has recently conducted a big research project on the level of participation, relevance, impact, and patterns of GVCs across ASEAN member states. Its report on Cambodia found that the country generally has weaker GVC participation than the ASEAN average and has a high concentration of lowskilled and labor-intensive industries, resulting in minimal impacts for the economy. The report suggested that Cambodia has potentials for GVC-led export industries and needs to increase participation in higher value-added GVCs. The report noted that SMEs in Cambodia are weak in terms of entrepreneurial capacity and technology application. They operate inefficiently and face difficulties in establishing supply networks with large companies as well as the GVC-led companies created by foreign direct investments (FDIs). The report suggested that greater involvement of Cambodia's SMEs in GVCs is important to ensure a more significant benefit for the country's economy.³

Existing literature on Cambodia's SMEs has been predominantly confined to the constraints facing SMEs in terms of governance, customers and market, human resources, products and services, and access to finance. For example, Harner (2003) conducted field research in 2002 by interviewing 12 banks on the barriers to SME lending

¹ The database can be accessed from its online portal at https://www.enterprisesurveys.org/ portal/login.aspx.

² The TiVA online database can be accessed from http://oe.cd/tiva.

³ This paper presents in Section IV a detailed discussion on the insignificance and patterns of GVC linkages in Cambodia.

and found that the cost of financing was higher than the general average lending rate but also noted that the increased competition in the banking sector would contribute to lowering the financing cost. Baily (2008) reported the issues of weaknesses in the legal framework. access to finance. of SME support activities. Chheang, Oum, and Leng (2010) surveyed 99 firms, most of which have less than 50 workers, and identified multiple barriers in different domains: functional barriers (management and finance), competitiveness (product and price), information, and business environment. Some studies highlighted the linkage between firms' characteristics and outcomes. Thangavelu, Oum, and Neak (2017), for example, analyzed survey data of 201 firms and found that larger firms have higher labor productivity, better access to business networks, active use of information and communications technology (ICT), more experience with multiple export markets, and skilled human capital and technological capability. These larger firms tend to have better engagement with free trade agreements and regional integration.

4. OVERVIEW OF CAMBODIA'S ECONOMY AND SMES

4.1 Two Decades of Growth and Industrialization Progress

Cambodia has pursued policies and reforms to integrate itself into the GVCs through promoting FDI and cross-border trade since the country's return to a market-oriented economy in 1989. The effort has led to a significant economic transition over the last two decades. Since 2001, real GDP growth rate has averaged 7.7% per year and has been at least 6% every year except 2009 during the global economic slowdown (Figure 2).

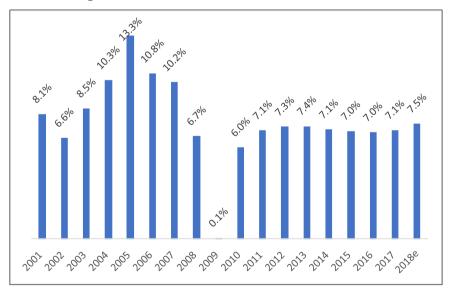


Figure 2: Real GDP Growth Rate, 2001-2018

Source: Ministry of Economy and Finance (MEF).

Figure 3 indicates that the industry sector share increased to 36% in 2018 from 22% in 2001. The service sector marginally increased to 39% from 38%, while agriculture declined almost halfway to 18% from 34% during the same period.

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Agriculture, Fishery, and Forestry ■Industry ■ Services

Figure 3: Sectoral Share of the Economy, 2001–2018

Source: Ministry of Economy and Finance (MEF).

The success in the garment and textile sector has long been a telling story of industrialization progress in Cambodia. The sector began in the mid-1990s and grew quickly to become the largest industry in Cambodia, with apparel and footwear dominating the country's merchandise export, largely because of relatively inexpensive labor, trade preferential treatments such as the Everything But Arms (EBA) and Generalized System of Preferences (GSP), which grants Cambodia duty and quota preferential access to markets in advanced economies including the EU, the US, and Japan, and incentive policies such as Qualified Investment Projects (QIP). The government's efforts to accelerate economic diversification has seen some success, with a surge in other goods export including preprocessed agricultural products, automotive parts and other light manufacturing machinery and equipment products, and bicycles. Figure 4 shows that the merchandise export volume grew from \$1.5 billion in 2001 to \$16.5 billion in 2017. The largest export markets include the EU, the US, Japan, the PRC, Canada, Singapore, Thailand, and Viet Nam.

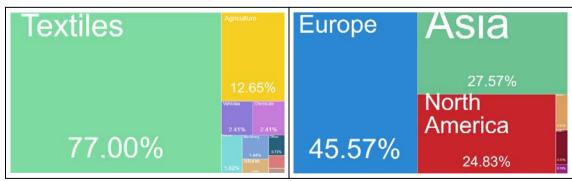


Figure 4: Cambodia's Exported Products and Markets, 2017

Source: Atlas of Economic Complexity, Center for International Development.

Figure 5 highlights the growth in import volume, from \$1.5 billion in 2001 to \$14.6 billion in 2017. Textiles and related garment industry inputs accounted for the largest share. The largest exporting countries include the PRC, Thailand, Viet Nam, Singapore, Japan, and the Republic of Korea.

Figure 5: Cambodia's Imported Products and Partners, 2017

Source: Atlas of Economic Complexity, Center for International Development.

The poverty rate was 13.5% in 2014, a measurement based on the \$1.90 threshold daily consumption expenditure. The rate was down from the realm of 50% in 2004. The country attained the status of a lower-middle-income country in 2015 according to the World Bank's classification and set out an ambitious development vision of becoming an upper-middle-income country by 2030 and a high-income country by 2050. This vision has added momentum to the government's reforms toward further industrial development and integrating further into the GVCs.

4.2 Significance of Private Sector and SMEs

Cambodia's economy is predominantly private. The majority of private businesses are small, many of them family run. They are the backbone of the economy. The Ministry of Industry and Handicraft (2018) noted that SMEs⁴ account for 99% of Cambodia's enterprises and contribute over 70% to employment and 58% to GDP. Generally, these businesses have more issues regarding access to information than bigger businesses. both through formal and informal channels. Therefore, they are particularly affected by the lack of transparency and enforcement in the regulatory regime, and struggle with the complexity regarding regulations and standards, i.e., registration, technical measures, licensing, and export processes. They are generally of limited capacity and less productive. They are also less likely to be able to access finance, pay fewer or no taxes, and typically do not provide training for their workers, or comply with labor laws, other regulations, and standard requirements. These distortions largely explain why their significance is not reflected in their internationalization activities. The Federation of Association for Small and Medium Enterprises in Cambodia revealed a significant absence of Cambodian-made products overseas as SMEs account for a mere 10% of exports (Sok and Poovenraj 2019).

The government's SME Development Framework 2005 set out the official definition of SMEs in Cambodia.
 SMEs are defined in two ways: based on the number of full-time employees (used for statistical purposes

mainly), i.e., between 10 and 100; or based on total assets (excluding land), i.e., between \$50,000 and \$500,000. These definitions, however, do not perfectly map onto each other – for instance, some enterprises with fewer employees could have more than \$500,000 in assets. To the best of our knowledge, there is an ongoing effort to uniformly redefine SMEs, to make all the policy measures applicable, and for SMEs to take advantage of various incentive measures.

4.3 Insignificant Value Chain Linkage

Figure 6 shows that Cambodia's overall GVC participation is below the ASEAN⁵ average. The GVC participation is broken down into backward and forward participation measures and expressed as shares of the country's exports. The strong backward participation showcases the fact that the country has thus far embraced the "Factory Asia" growth model, relying largely on foreign value added, in combination with trade preferential treatments and inexpensive low-skilled labor to give a boost to the country's industrialization and its exports. The weak forward participation highlights the low level of upstream activities in the country.

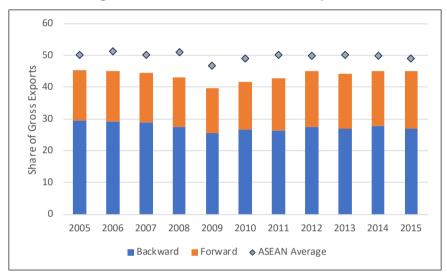


Figure 6: Cambodia's GVC Participation

Source: OECD-WTO TiVA Database.

Sector-wise, the magnitude of Cambodia's overall GVC engagement is limited to only a few industries. The manufacturing is mostly involved in GVCs, led by textile products, leather and footwear; and food, beverages, and tobacco; followed by agriculture, transportation and storage; and wholesale and retail trade (Table 1).

Cambodia has demonstrated the strongest connection with ASEAN as a bloc and regional countries. They include selected ASEAN member countries, the PRC, Japan, the Republic of Korea, the United States, Mexico, and a few European countries (Table 2).

7

⁵ ASEAN in the OECD-WTO TiVA database excludes the Lao PDR and Myanmar due to data unavailability.

Table 1: Magnitude of Cambodia's GVC Participation by Sector (% of Gross Export)

	-	Backward		Forward		
	2005	2010	2015	2005	2010	2015
Agriculture	7.7	3.3	3.6	0.7	0.5	0.7
Mining and quarrying	0.0	0.0	0.1	0.4	0.4	0.3
Manufacturing	19.2	18.5	17.9	12.5	11.1	14.1
Food products, beverages, and tobacco	2.2	1.3	1.3	5.2	3.6	4.7
Textiles, textile products, leather, and footwear	11.6	9.1	8.8	2.0	0.9	2.0
Wood and paper products and printing	0.9	1.2	0.4	0.6	0.6	0.5
Chemicals and nonmetallic mineral products	1.5	2.2	2.0	1.2	1.5	1.4
Basic metals and fabricated metal products	0.7	1.8	1.2	0.4	0.5	0.5
Computers, electronic and electrical equipment	1.0	0.8	2.2	1.3	1.6	2.5
Machinery and equipment, n.e.c.	0.5	0.6	0.7	0.4	0.5	0.5
Transport equipment	0.6	0.9	0.6	0.6	8.0	1.3
Manufacturing n.e.c; repair of machinery and equipment	0.3	0.5	0.6	0.9	1.1	0.7
Electricity, gas, water supply, sewerage, waste and remediation services	0.0	0.0	0.0	0.0	0.0	0.0
Construction	0.0	0.0	0.0	0.0	0.0	0.0
Total business sector services	2.5	4.7	5.2	2.3	2.9	2.8
Wholesale and retail trade; repair of motor vehicles	0.5	0.9	1.1	8.0	0.7	0.7
Transportation and storage	1.3	2.6	2.9	0.5	8.0	0.8
Accommodation and food services	0.5	0.5	0.7	0.5	0.4	0.5
Publishing, audiovisual, and broadcasting activities	0.0	0.0	0.0	0.0	0.1	0.0
Telecommunications	0.1	0.4	0.3	0.1	0.3	0.1
IT and other information services	0.0	0.0	0.0	0.1	0.1	0.1
Financial and insurance activities	0.0	0.0	0.1	0.1	0.2	0.2
Real estate activities	0.0	0.0	0.0	0.0	0.0	0.0
Other business sector services	0.1	0.2	0.2	0.2	0.3	0.3
Public admin, education, health, and other personal services	0.1	0.1	0.1	0.1	0.1	0.1

Source: OECD-WTO TiVA Database.

Table 2: Cambodia's Top 10 Partners in GVC Participation

		Backward		Forward			
	2005	2010	2015	2005	2010	2015	
1	PRC	PRC	PRC	VIE	VIE	VIE	
2	TAP	HKG	THA	PRC	THA	THA	
3	HKG	TAP	JPN	THA	PRC	PRC	
4	JPN	THA	VIE	MAL	SIN	SIN	
5	THA	KOR	KOR	SIN	MAL	KOR	
6	VIE	JPN	TAP	SVK	HKG	USA	
7	MAL	VIE	HKG	USA	USA	MAL	
8	USA	USA	USA	MEX	KOR	JPN	
9	FRA	MAL	SIN	FRA	GER	MEX	
10	INO	INO	IND	GER	LUX	GER	

Note: PRC stands for the People's Republic of China; VIE for Viet Nam; THA for Thailand; MAL for Malaysia; SIN for Singapore; INO for Indonesia; KOR for Republic of Korea; TAP for Taipei, China; HKG for Hong Kong, China; JPN for Japan; IND for India; FRA for France; GER for Germany; LUX for Luxembourg; SVK for the Slovak Republic; MEX for Mexico; and USA for the United States.

Source: OECD-WTO TiVA Database.

Within ASEAN, Singapore has the highest average GVC participation rate (62.8%), followed by Malaysia (58.0%), Viet Nam (53.4%), Thailand (51.5%), the Philippines (46.4%), Cambodia (43.7%), Brunei Darussalam (42.2%), and Indonesia (41.1%). The average for ASEAN stands at 49.9% (Figure 7).

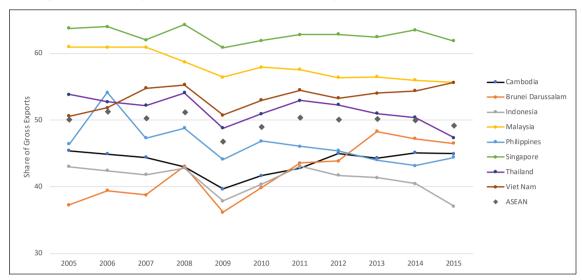


Figure 1: Average GVC Participation Among ASEAN Countries, 2005–2015

Source: OECD-WTO TiVA Database.

4.4 Modes of SMEs' GVC Participation and Enduring "Gaps"

Evidence at both micro and macro level reinforces the notion of limited GVC participation among SMEs in Cambodia and the implication that "gaps" exist to be linked or bridged.

Among the 71 SMEs recently surveyed by the Ministry of Industry and Handicraft (MIH), half of the firms reported having engaged in internationalization activities (MIH 2019). Of these, most focus on only basic forms of engagement, including importing (53%), cooperating with foreign firms (39%, through joint venture, business contract, franchising, etc.), and exporting (22%). More complex engaging activities are limited, including being subcontractors to foreigners (11%), having foreign subcontractors (11%), or investing abroad (8%). The surveyed SMEs reported that they need, or strongly need, information about various types to promote their internationalization: 86% of them need information on standards, followed by information on regulations (77%), support policies/programs (76%), trade and investment agreements and their requirements (73%), service providers (62%), and others, i.e., finding business partners (55%).

The added-up percentage is over 100% as some of the SMEs reported having engaged in multiple forms at the same time.

Another survey, 7 in which this paper's author directly interviewed 15 agro-processing SMEs, found that primary processing still makes up the majority of agro-industry and normally performs only one value-added activity (besides packaging) before selling mainly to the domestic market. Cooking, grinding, drying, roasting, and/or packaging are the most common value-added activities. It is often reported that a large proportion of Cambodia's agro-products, including cassava, maize, and cashew nuts, has been exported both formally and informally to neighboring Thailand and Viet Nam to be processed for export. The assessment concluded that limited quantity, poor quality, and the seasonality of local raw materials were the most common supply-side constraints. The most common demand constraints included limited information access that could lead to an informed decision regarding the market needs, access to buyers, payment terms that create high upfront costs, and certification regarding safety and standards, which was an issue affecting mostly secondary processors and exporters. Regulatory constraints were of little concern for processors focusing on the local market. Some primary processors reported aspiring to export their products, but they lack knowledge of the export process. For processors looking to expand, a lack of financing was a significant constraint.

Another survey,8 in which 50 domestic and foreign firms operating in Cambodia in garments, electronics, and other light manufacturing sectors were interviewed, noted that domestic firms generally have a high degree of constraint issues in meeting the requirements of foreign firms – in terms of quantity, quality, and distribution. On the one hand, there are no information facilities that indicate what the requirements are. On the other hand, the compliance cost itself is remarkably high, i.e., in terms of quality, safety standards, hygiene standards, and Good Manufacturing Practice Certificates, amongst others, thereby constraining domestic business in connecting with foreign firms. Purely domestic firms reported having relatively more capacity constraint issues than those with foreign partners, due to the different degree of acquiring know-how and technical skills. The survey concluded that domestic SMEs were not in a ready state to connect to GVCs, and acknowledged that the important first step was to collaborate with foreign firms so as to acquire significant know-how and technical skills. The survey also noted that there is a missing link between domestic SMEs and FDI, particularly when the FDI is a QIP project. A QIP project is entitled to receive investment incentives, including profit tax exemption for a specified period, or special depreciation allowance, import tariff and export tax exemptions, and VAT exemption. The QIP project will not be able to claim back VAT if it sources materials locally. Other major challenges for SMEs in connection with FDI include a lack of trust and the payment terms, i.e., payment made 40 days after delivery of the goods.

A multitude of gaps also persist in the business environment. The ES 2016 identified major constraint issues reported by each of the 373 businesses participating in the survey (Table 3). These businesses are grouped into three distinct sectors as follows:

elaborated the findings.

The assignment was conducted for the project "Overview of Agro-processing Industry," commissioned by the Cambodia Agricultural Value Chain (CAVAC) program phase II. The project report was prepared

and maintained as a CAVAC internal resource – unpublished – for their intervention program and support to SMEs in Cambodia in their commercialization and diversification.

8 This survey was on FDI–SME linkage and was part of the assignment commissioned by the International Finance Corporation. The survey report was not made available to the authors at the time of this paper's drafting. However, one of our interviewees who directly engaged in conducting the survey kindly

Table 1: Enterprise Survey 2016 Industry Sampling

Industry Sampling	Number	%
Manufacturing		
Food	39	10.46
Textiles	6	1.61
Garments	46	12.33
Wood	2	0.54
Paper	1	0.27
Publishing, printing, and recorded media	8	2.14
Refined petroleum product	2	0.54
Plastics and rubber	2	0.54
Nonmetallic mineral products	4	1.07
Basic metals	6	1.61
Fabricated metal products	3	0.8
Machinery and equipment	1	0.27
Electronics	1	0.27
Precision instruments	2	0.54
Furniture	5	1.34
Recycling	3	0.8
Retail		
Retail service	123	32.98
Other Service		
Construction section	9	2.41
Services of motor vehicles	7	1.88
Wholesale	22	5.9
Hotels and restaurants	69	18.5
Transport Section	11	2.95
IT	1	0.27

Note: Sample size = 373. Survey did not include businesses with less than five persons employed. Source: Enterprise Surveys Database (World Bank 2016).

Constraints cited as being major or very severe include: competition in the informal sector (32.0%); crime, theft, and disorder (24.2%); inadequately educated workforce (17.6%); access to finance (16.9%); transportation (12.0%); business licensing and permits (11.1%); corruption (10.2%); customs and trade regulations (8.0%); tax rates (6.5%); tax administration (6.4%); electricity (6.1%); labor regulations (5.2%); and court system (4.0%). While the reported constraint issues have the same implications for surveyed firms of all sizes, some important highlights include:

- Informality masks the severity of business regulation constraints.
- Manufacturing firms report labor regulation as being a more severe constraint whereas tax administration is identified as a less severe constraint issue for manufacturing businesses than for retail and other service firms.
- Larger businesses and exporters are more likely to have issues with business regulation constraints – presumably because they deal more with business regulations than their smaller counterparts and nonexporters.
- Foreign-owned businesses (with at least 10% foreign ownership) report that all business regulation constraints are more severe than do domestic firms. This may be because the actual practice and enforcement of business regulation fails the high expectation set by foreign-own businesses based on their understanding of the written regulatory documents.

The panel ES data set illustrates noticeable improvements in the constraint issues reported by 131 businesses that participated in both the 2013 and 2016 surveys (Table 4). That said, the extent to which the business regulatory constraints undermine the business operations remains large, with high two-digit numbers being reported on half of the issues.

Table 2: Reporting "Major" or "Severe" Constraint Issues – 2013 vs. 2016 (%)

Reported Constraints	2013	↑ ↓	2016
Competition in the informal sector	34.8	1	24.8
Crime, theft, and disorder	16.1	\downarrow	18.8
Inadequately educated workforce	26.8	\uparrow	10.7
Access to finance	22.5	\uparrow	8.4
Transportation	14.4	\uparrow	9.4
Business licensing and permits	3.6	\downarrow	11.3
Corruption	57.1	\uparrow	9.4
Customs and trade regulations	8.4	\uparrow	4.9
Tax rates	31.3	\uparrow	3.7
Tax administration	24.3	\uparrow	21.8
Electricity	40.5	\uparrow	5.3
Labor regulations	1.0	\downarrow	4.5
Court system	17.1	\uparrow	7.0

Note: \uparrow implies reported improvements and \downarrow reported deterioration.

Source: Enterprise Surveys Panel Database (World Bank 2016).

Constraints are also manifested in macro-level evidence. The country is ranked 144th out of 190 economies in the WB's Doing Business. Cambodia also ranks low across the World Bank's Governance Indicators, particularly in terms of control of corruption, rule of law, government effectiveness, and accountability. The country scored 0.49 in the World Bank's Human Capital Index, ranking 99th out of 157 countries. Transparency International places Cambodia 162nd out of 180 countries in its 2019 Corruption Perceptions Index. The Logistics Performance Index 2018 (LPI) ranked Cambodia 98th out of 160 economies. The country performed worst at 130th for the infrastructure component of the Index. Inadequate infrastructure capacity and performance in logistics results in higher costs and subsequently affects the country's economic competitiveness, which is also reflected in the Global Competitiveness Index's 2019 edition, where Cambodia was ranked 106th out of 141 economies.

5. DISCUSSION – BRIDGING GAPS AND MISSING LINKS

The assessment and evaluation that follows concern the "bridging gap" and "missing link."

5.1 Business Environment and Regulatory Practice

While acknowledging ongoing government effort to address the reported constraint issues, the collective observation among interviewed experts highlights an overall minimal improvement concerning business regulation and regulatory practice.

At the macro level, the recent effort includes the launch of Cambodia's Trade and Integration Strategy Update (CTISU) 2019–2023 in July 2019. Prepared by the Ministry of Commerce, the CTISU includes action points to support SMEs operating in various sectors including agriculture and light manufacturing industries. For instance, Chapter 2 calls on the private sector to "identify the export skills needs of Cambodian SMEs in such areas as market research, export marketing strategy, supply chain management, sales development (direct sales to domestic exporters; export sales to global and regional value chain actors), branding, use of electronic markets, use of social media, etc., and then implement training programs on these skills. Other reforms include: (1) the subdecree on SME tax incentives, aiming to support SMEs in six priority sectors, related to agro-industry and food production and processing, through exemption of tax on profit, prepayment of profit tax and minimum tax, and special deductible expenses, with attached conditions: (2) establishment bank with initial capital of \$100 million to increase access to financing for Cambodian SMEs with preferential conditions: (3) establishment of an entrepreneurship fund with a budget of \$5 million a year to cultivate an entrepreneurial culture and attitude and promote the capacity of both high potential SMEs and innovative startups; and (4) establishment of a government-ADB joint skills development fund with a budget of \$5 million for upgrading the skills of workers employed in high-growth sectors. Whether or not these new initiatives translate into a better engagement of SMEs in GVCs is too soon to say.

Interviewed SMEs have not expressed high hopes about these reform agendas, given the little detail on implementation strategies and coordination issues evolving in the reform agenda. For example, the iconic Cambodia Industrial Development Policy 2015–2025 (IDP) delegates reform actions to various line ministries, but these actions are described in broad statements with few details. Delegation to multiple ministries has often led to accountability and coordination issues. Practitioners, authors included, have had long experience working with government agencies on multiple development projects and broadly agree that there are persistent challenges in terms of coordination.

Interviewees expressed mixed perceptions on the improvements in corruption practice, tax administration, and anti-competitive practice. Corruption affects the efficiency of public services, ranging from investment-related business licensing and operating permit applications and taxation to custom clearance and other services, which in turn create a strong divergence in the cost-benefit equation for many SMEs to decide on formalization. On the cost side, this includes not only the time and costs associated with registering a business, but also the ongoing compliance and administrative burdens associated with regulations, taxation, and dealing with different government authorities. Complying with these cost elements is a daunting task for businesses in addition to their trust deficit with government. Businesses the are concerned that the government wants more information about them to tax and regulate instead of aiding businesses. The benefits side includes improved access to financial services and other business development services, which are not appealing in themselves, i.e., collateral restriction and cost of financial products, hesitating to utilize business development service.

The improvement regarding access to finance receives high praise from interviewees, due to the large number of active financial institutions in the Cambodian market that create a good pool of sources of finance for SMEs. In 2018, Cambodia's banking system consisted of 43 commercial banks (15 locally incorporated banks, 15 subsidiary banks, and 13 foreign branch banks) and 14 specialized banks (one state-owned bank and 13 private banks). There are 353 microfinance institutions (MFIs) including seven deposit taking MFIs, 73 MFIs, and 273 rural credit institutions. Banks like Acleda, Canadia, ABA,

and Sathapana and MFIs such as Hattha Kasekar have extensive experience in lending to SMEs in Cambodia. The SME Bank was also established recently. The complexity of application procedures and the collateral requirements, however, remain obstacles for businesses in applying for loans. The cost of finance is still viewed as a "missing link." Typical interest rates on SME loans range from 11% to 16%. The loans are mostly shortterm, five years at most, because local financial institutions have limited capacity to offer longer loan tenors due to their reliance on short-term deposits. SME loans also have a strict collateral requirement, which disqualifies some SMEs that do not have access to the right sort of collateral, i.e., real estate property, vehicles, and third-party guarantees. In a related context, the growth in bank credit to the private sector has risen overall, but much was directed towards construction and real estate-related activities at a combined 35% in 2018. The share for agriculture and manufacturing is much lower, at 0.6% and 0.4%, respectively. The credit constraints undermine growth in sectors where access to finance is particularly challenging. It is hindering businesses' ability to expand, invest in new equipment and technology, gain access to foreign markets, and manage their liquidity efficiently.

5.2 Infrastructure and Logistics

Interviewed experts opined that electricity has seen minimal improvements, highlighting the high electricity cost and multiple power cuts the country experienced during the dry season in 2019 and previous years. Conventional electricity production such as hydropower is prone to seasonal changes in the water in the reservoir. The high electricity demand during the dry season often adds pressure to the limited energy supply resulting from increasing economic activities, i.e., growing Chinese investment, frequent droughts, longer dry seasons, and the intensifying impacts of climate change. The power cuts are often crafted to avoid disruption to industrial complexes and major commercial sectors as much as possible. The situation is often grimmer for SMEs, however, frequently forcing them to shut down their production line due to a lack of lighting and air conditioning and running machinery. Some opt to use generators, which is typically more expensive than using energy from the power grid. One expert estimated 20%–30% of damage to the production process of manufacturing SMEs.

Interviewees did not express a favorable opinion toward improvement in transport infrastructure either. Certain improvements are already taking place following infrastructure development and rehabilitation efforts and new momentum, i.e., the National Logistics Master Plan. The transportation cost remains higher than in neighboring countries, however. Experts are of the view that SMEs become more affected by transport costs when they grow larger and engage more in GVC activities such as exporting and importing. The transportation fees per container of goods could cost the importers and exporters more than \$500 and \$800 when an associated unofficial fee is involved.

5.3 Customs and Trade Facilitation

Improvements in these areas have largely manifested in the form of streamlining and modernization of trade-related procedures. The cases in point include the introduction of the automated customs processing system called the "Automated System on Customs Data" (ASYCUDA) in 2008 to facilitate export, import, and goods in transit. The ASYCUDA system is now implemented at all ports and checkpoints and covers all Single Administrative Declarations (SADs) and trade volume data. Cambodian customs also launched mobile apps such as the Customs Tariff and Customs Clearance Handbook apps with a view to strengthening transparency in trade-related information. Work to

establish a fully operational and well-performing National Single Window (NSW) is ongoing. It is a trade facilitation automation platform for customs clearance procedures that consolidates all documentation processes into a single, ICT-based submission for importers and exporters. At the time of this study, businesses can, for instance, now use the NSW to request and exchange Rules of Origin (RoO) certificates required for tariff preferences for ASEAN markets. The Ministry of Economy and Finance (MEF) also launched the National Trade Repository (NTR) portal in late 2015, which serves as the official source for all regulatory information relevant to traders who wish to import goods into Cambodia or export to other countries and makes information on trade legislation and policies available to a broad range of stakeholders. Following 10 years in the making, the e-commerce and consumer protection laws were approved and enacted at the end of 2019, providing a basic legal and regulatory framework for electronic transactions and signatures as well as for accessing and sharing information and data in cross-border trade transactions.

The missing links, as interviewees opined, are first that these developments have not reached out to the SMEs, which generally have less access to information than bigger companies and struggle with increasingly complex regulations and standards (including import and export processes, technical measures, and registration). Also, the trade facilitation implementation only targets certain industries, i.e., garments, footwear, textiles, and rice, which means there is little help in terms of facilitating import and export for SMEs in such priority sectors as agro-industry and nongarment manufacturing. The absence of SME representatives in the existing trade-related public-private consultation mechanism has undermined their advocacy capacities to make new improvements in trade facilitation work in their favor.

5.4 Private Capacity Improvement

Having had limited success in "bridging the gaps" as discussed above implies greater pressure on SMEs whose capacity, as discussed below, manifests as a "missing link" itself.

An inadequately educated workforce is validated as the remaining gap. The underlying causes are complex and interrelated. For example, the cost of schooling is a barrier to education for some children. Although primary education is free, parents must pay for uniforms, books, and school supplies, as well as informal fees. Due to their low compensation, teachers often collect informal fees for extra tuition, creating extra financial burden for children and their families. The low and declining completion rates, i.e., from 80% at primary school to 43% at lower secondary and 20% at upper secondary, ⁹ reduce the supply of potential students for Technical and Vocational Education and Training (TVET) and university. A university degree, particularly in social sciences, is much preferred by students and their families to a TVET education but often does not match the demands of employers. Once completed, the quality becomes another major issue. In the job markets, skills gaps and mismatches are frequently reported as issues.

The overall human resource constraints also apply to business owners and management. They can include issues such as weak corporate governance, poor financial literacy, an entrepreneurial mindset, a lack of negotiation skills, and networking, amongst others. These features of human capital are noted by our interviewees to be linked to the success of some SMEs in Cambodia.

⁹ Ministry of Education, Youth, and Sport.

Interviewed experts still observe the missing links in the production capacity, market access, financing, raw materials and finished products, information access, standards, and certificate issues. For example, they are of the view that the limited information availability continues to prevent SMEs from making informed decisions over such matters as potential business partners and markets, raw material sources, how to import and export, international requirements and standards, among others. There are multiple attempts to address the issues. The cases in point include the launch in 2017 of the Business Information Center (BIC) under technical support from the ADB and Australian government-supported Mekong Business Initiative (MBI). BIC aims to provide SMEs with a one-stop resource for up-to-date information on business laws and regulations, opportunities, and business support services. It aims to play a leading role in clearing obstacles to business incorporation and formalization. The Young Entrepreneurs Association of Cambodia (YEAC) administers and operates the platform. One of our interviewees noted some challenges facing BIC, including the availability and quality of up-to-date information, user journey improvement needs, and the organizational and financial capacity to run and operate the platform. The MIH is currently seeking to develop a national SME information portal to provide formal and reliable information to SMEs for their development and internationalization. However, interviewees cautioned about the sustainability issue if the platform is administered by the public sector, noting that there are multiple cases where the fully developed and functioning systems fail at the closure of the donor-supported programs.

5.5 Representative Cases of SMEs and Underlying Successful Factors

Some SMEs have grown and engaged successfully in GVCs amid the enduring missing links (Box 1 and 2).

The successes of the two firms are attributed to various intertwined factors that remain a valid set of good reference examples for other SMEs. A strong entrepreneurial spirit is one and will create modern and registered businesses rather than inefficient and informal ones. Informality means little compliance with business regulations in terms of business registration, tax payment, improper bookkeeping and accounting practice, etc. and thus makes any effort by regional and global firms to connect with domestic businesses challenging. A visionary leadership is important to bring the business to another new level and plan for future expansion beyond the domestic markets. This in turn generates a strong willingness to adapt to change and enhance business practice with improved standards and production capacity to meet growing market needs. These firms tend to be more proactive in terms of accessing needed information regarding market opportunities and embracing those opportunities. They build a strong foundation of business networking and a working relationship with the government and development partners through which they can access first-hand information and technical support. They actively take part in regional and global trade fairs to gain more international exposure and experience in dealing with foreign buyers and suppliers as well as accessing potential overseas markets. They make themselves ready for and continue to seek opportunities to strengthen their engagement in internationalization activities through cooperation with foreign firms in different forms, i.e., joint ventures. This will result in rising productivity and production and export capacity through acquiring newer and more advanced know-how and technology, financing, marketing, and other management knowledge that will subsequently expand their GVC participation.

Box 1: LYLY Food Industry Co., Ltd.

LYLY's director, Keo Mom, is described as having a strong entrepreneurial spirit from a young age despite having had a low educational background and being a woman. She felt the market opportunity when she was working low profile at foreign firms, during which she also acquired relevant knowledge and knowhow. She kick-started as a first mover in the food industry by launching LYLY back in 2002, with working capital of \$100,000 from her own savings and loans from relatives. Implementing all the know-how she acquired during her service to foreign firms regarding machinery operation, staff management, and financing, among other things, she has made LYLY grow from a small production facility with just 20+ staff into a big well-known cracker producer in Cambodia. employing over 200 Cambodians.

She has proactively built up a strong foundation of networking, both directly and through her affiliation with business associations, with government, development partners, and domestic and overseas business communities. This foundation has helped her business grow to the point where the Cambodian government and development partners would want to strengthen their support to make it an example of Cambodia's limited SME success stories, assisting the company in terms of first-hand information access, government procedures, technical assistance, business partner matching, etc.

LYLY aims to support local industries by sourcing raw materials from Cambodian farmers and businesses as much as possible. Today, less than 20% of raw materials, including palm oil, seasoning, and milk powder, are sourced from Thailand and Malaysia, to ensure sufficient supply of quality input and maintain production capacity. Machinery and technology are imported from the PRC. The factory applies the methods and strategies of 5S (in five Japanese words, i.e., seiri, seiton, seisō, seiketsu, and shitsuke, which literally mean "sort," "set in order," "shine," "standardize," and "sustain") and Kaizen (which literally means "continuous improvement") in the production, and acquires quality, hygiene, and safety standards and certificates. These have been particularly critical in ensuring the company's strong foothold in domestic markets and export activities. The company exports its products to the US, Canada, Australia, Thailand, Malaysia, and the Republic of Korea, amongst others.

The company's new joint venture with Japanese rice cracker maker Kameda Seika Co. has been in full operation since mid-2019, expanding its output and cultivating new markets such as Australia and New Zealand. A combination of push factors from the Japanese side, pull factors from LYLY, the business matching and supportive role of such relevant associations and platforms as the Japan External Trade Organization, Japan International Cooperation Agency (JICA), and Cambodia-Japan Business and Investment, played a critical role in materializing the venture. According to the director, this materialization may be traced back to the past cooperation activities between LYLY and these Japanese organizations as well as her firm's participation in a project run by the Asian Productivity Organization (APO), largely with the support of Japan's Ministry of Agriculture, Forestry, and Fisheries (MAFF). The director reported having often conveyed to Japan's sides through these organizations her willingness to form business partnerships with potential foreign firms. One day, she received an unexpected phone call from Kameda, telling her they had obtained her contact from MAFF and expressing their interest in LYLY as Kameda was also looking to expand their production base to Cambodia. Several exchanges between the two firms followed, specifically with Kameda sending their experts and audit team to LYLY to learn about the production and financial practice before they reached agreements. Keo Mom, on her part, welcomed the opportunity, believing that her firm would further expand by taking advantage of Kameda's expertise in quality management and capital. She noted that standards of quality and hygiene and bookkeeping and accounting practices that her firm had been improving for years with support from the government and development partners made it attractive to Kameda. A new factory was built, with Kameda taking the lead in production technology, quality and standard management, marketing, and other management aspects.

The new joint venture is highly praised by government officials as it brings newer and more advanced skills needed in processing, technology, funding, marketing, and other management knowledge that will expand the company's GVC participation.

Box 2: Kirirom Food Production

Kirirom Food Production started its first factory in 2014, manufacturing dried mango. The company was rooted in the director's previous generation, which has held a strong love and passion for mango growing and business. Kirirom has grown with a vision to help create a market for the regional farmers and stabilize their incomes during the harvest season, around which period the oversupply of the fruit and lack of market opportunities had often led to a large amount of spoilage and unnecessary waste.

The factory is in Cambodia's mango heartland, the Kirirom region, which has allowed easy access to its raw materials and helps in getting around the issues of Cambodia's logistic performance and high costs. Kirirom has built a strong and dedicated "Team Buyer" to work with suppliers, either directly or through regional middlemen collectors who have sufficient storage to buy directly from farmers and properly store the collected fruits, to ensure the smooth supply of raw fruits to meet the company's demand for 40–60 tons of raw mango per day. While the company concentrates on dried mango during the harvest season, it has added another production line to also process dried papayas and pineapples to take full advantage of their production facilities during the off-season (for mango). While fruits are supplied locally, the company sources sugar, the other major ingredient, from Thailand, ensuring an uninterrupted supply. The company uses about 30 tons of sugar per month.

The company has always targeted foreign markets, upgrading their products' quality, safety, and standard through the application of 5S and acquiring relevant certificates. The company has had good working experience with the government, receiving support in terms of access to information regarding market opportunities, business partners and the like, invitation to trade fairs, and government-organized and donor-supported production capacity development projects. With a growing market base in both domestic and overseas markets, the company is to build another factory, acquiring more modern equipment from abroad to increase the automation in the production.

It currently exports 80–100 tons per month to Thailand; Viet Nam; the Philippines; and Hong Kong, China in two forms: direct to end-consumers, and to foreign firms that would do the repacking and relabeling before selling in their own markets or re-exporting to third markets. The company does not deal with import/export processes on its own but commissions to logistic agencies to avoid burden regarding the complexity in the time-consuming processes.

5.6 Evolving Regional and Global Environment: Opportunities, Challenges, and Risks

Cambodia continues to enjoy strategic and economic benefits from its membership in an increasingly integrated and cohesive ASEAN community, which in itself is the hub of the economic and political-security architecture in the wider region around which GVC activities are organized. The growth prospects, demographics, and social dynamics of the Mekong subregion attract the interest of many investors from inside and outside. This subregion is an integral part of the ASEAN community and will have witnessed a speedy pace of intra- and extra-regional connectivity and integration, shaping the ways businesses operate in member countries in terms of value chain expansion, i.e., Cambodia becomes part of the alternative supply base to electronic equipment, machinery, and automotive spare parts factories in Thailand and Viet Nam. Large corporations will have a stronger interest in opening factories in Cambodia as part of their "China+1," "Thailand+1," or "Viet Nam+1" approach to take advantage of the increasingly connected region and to diversify their operation. As an ASEAN member, Cambodia has benefited greatly from the connectivity development focus of the growing

These "X Plus 1" refer to a strategy whereby corporations branch out from their plants in X by opening production facilities in other regional countries, basically to diversify risk, control cost, and access new markets.

number of regional cooperation mechanisms in the region,¹¹ from connectivity to labor market development to cross-border trade.

Cambodia is advancing bilateral FTA negotiations with its key economic partners for new markets. At a multilateral level, Cambodia has proactively worked with other regional countries to expedite negotiations on the Regional Comprehensive Economic Partnership (RCEP) and explored the opportunity to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CP-TPP) and the Asia-Pacific Economic Cooperation (APEC). The conclusion of all these trade pacts will provide greater opportunity to SMEs in Cambodia in terms of market access. While the RCEP negotiating text had not been made available at the time of this research, the trade bloc agreement meant a single tariff offer by RCEP partners to all the ASEAN countries and from ASEAN members to all RCEP partners. This means Cambodia is treated the same as Thailand, Malaysia, and others, in terms of market access. The opportunity for SMEs in Cambodia is substantial if the missing links discussed in the above section are bridged. A similar assertion can be made in the case of other trade agreements.

Similarly, Industry 4.0 presents many opportunities. The use of newer, more advanced, and better technology has the potential to benefit businesses in all sectors. Agriculture would see a substantial improvement in productivity, diversification, commercialization, and exports, with an increased level of mechanization. The manufacturing sector would experience a greater transition toward higher value-added products. The service sector would have the highest level of ICT utilization, led by a full-fledged embrace of digital transaction and fintech. Interviewed experts are of the view that given the remaining gaps, SMEs are not capable of embracing the arrival of the fourth industrial revolution, which brings with it such innovations and technologies as artificial intelligence, robotics, the Internet of things, and the like. It is unclear as to whether these new technologies will replace the tasks that are currently conducted by SMEs, but our stakeholder consultation thus far indicates that businesses are on the optimistic side. One possibility is that they will unlock the full potential of digital payment and e-commerce development, which will contribute to transforming traditional businesses and manufacturing and connect them better to the GVCs. There is also a trend in which social media is playing an increasing role as an inexpensive marketing and communication tool that potentially connects SMEs to potential buyers and business partners abroad, in addition to the traditional website.

Our interviewees opined that macroeconomic stability continues to be well maintained but cautioned of uncertainty issues regarding the removal of EBA. The impact was unclear at the time of this research, but the country's attractiveness for garment and textile industry investment is likely to erode. Concern about the competition also looms large. Fierce competition with other low-wage countries producing similar products is likely to intensify given that workers in Cambodia continuously seek wage hikes. The recent free trade agreement between Viet Nam and the EU adds even more pressure to the prospect of Cambodia's macroeconomy.

Cambodia is also at risk of overdependence on the PRC. The absence of investment diversification will make the country extremely vulnerable to disruptions from the PRC's capital control or even the consequences of the recent COVID-19 outbreak. A slowdown or reversal of FDI inflows from the PRC will significantly affect private sector growth. Cambodia's rice and tourism industries have been hit hard following the pandemic because they rely largely on the PRC's market. The situation is more critical

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For example, the Greater Mekong Subregion (GMS), the Ayeyawady-Chao Phraya-Mekong Economic Cooperation (ACMECS), the Lancang-Mekong Cooperation (LMC), the Mekong-Japan Cooperation, the Mekong-Ganga Cooperation (MGC), the Mekong-ROK Cooperation, the Lower Mekong Initiative, and the PRC-led Belt and Road Initiative (BRI).

in garments and textiles as the PRC has long been the major supplier of raw materials. It was only recently reported that as many as 180 garment factories had already suspended their operations, resulting in 150,000 job losses (Sen 2020). Though there is no formal impact assessment, the consequences of the outbreak will likely pass downstream to SMEs associated with these sectors.

6. CONCLUSION

The significance of SMEs in Cambodia has not been reflected in their GVC participation due to a multitude of constraint issues, or gaps. Certain aspects of these gaps, including business environment and regulatory practice, customs and trade facilitation, and logistics, have been bridged. However, missing links persist, further pressuring private sector development and SMEs, whose capacity issues are among the highlighted missing links in themselves. They include the limited production capacity, lack of financing, poorly maintained supply of raw materials and finished products, absence of information on potential business and market opportunities, and standard and certificate issues. These missing links will continue to hamper growth in SMEs at large and preclude them from benefiting from the opportunities presented by the evolving regional and global environment, including the dramatic development in digital technology and the growing number of regional and subregional cooperation and integration initiatives.

In terms of implications going forward, the government should galvanize reforms to both address remaining business environment issues and develop private sector capacity, and SMEs in particular. Engaging and building more trust with small business communities in a consistent, transparent, and supportive manner will improve the business formalization process, which is the first important stepping stone for SMEs in accessing adequate financing and internationalizing. Establishing a fully functioning and sustainable SME center and information portal is critical in helping SMEs to make better-informed decisions in terms of market opportunities and requirements as well as relevant administrative procedures. Facilitating business matching between local SMEs and foreign firms is equally important. This can be done through a combination of a dedicated information facility that allows firms to search for and reach out to potential partners, business matching and networking forums, and organized trade fairs. Further mobilizing donors' support to help SMEs develop products that are in line with foreign firms' requirements is an important remedy. While the list of new priorities and actions seems long and daunting, bridging efforts like these must build up momentum.

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