



INSTITUTIONAL DEFICITS IN POLICY DESIGN AND IMPLEMENTATION



The Case of the Philippine Cacao-Chocolate Industry Roadmap and
Upgrading Strategy

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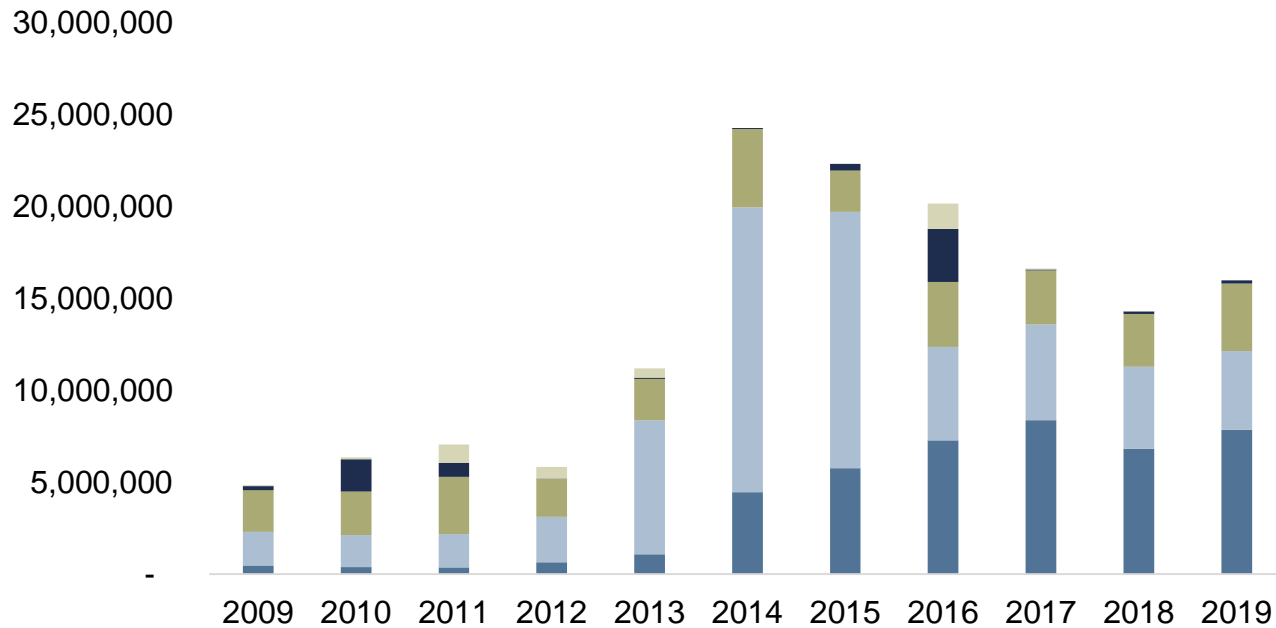




The Philippines in the Cacao-Chocolate Global Value Chain

The Philippines is an emerging player in the cacao-chocolate GVC, with promising participation in both cacao bean production and chocolate manufacturing segments

The Philippine Cocoa-Chocolate Exports by USD Value, 2009 to 2019



- COCOA PASTE, WHETHER OR NOT DEFATTED.
- COCOA POWDER, NOT CONTAINING ADDED SUGAR OR OTHER SWEETENING MATTER.
- COCOA BUTTER, FAT AND OIL.
- CHOCOLATE AND OTHER FOOD PREPARATIONS CONTAINING COCOA.
- COCOA BEANS, WHOLE OR BROKEN, RAW OR ROASTED.

- A looming global cacao bean shortage of up to 2 million tons by 2030 leads to search for new producer country suppliers outside Côte d'Ivoire, Ghana, Ecuador, Cameroon, Nigeria, and Indonesia
- Growing domestic and regional chocolate market, shifting consumer preference for single origin and sustainable chocolate products, and emergence of small-batch processing equipment are opening new windows of opportunities for artisanal brand chocolate manufacturers from producer countries
- Philippines is in a unique position to take advantage of such technological and market discontinuities due to (1) geographical advantages suitable for bulk and fine flavor cacao bean production and proximity to new markets and (2) emergence of high-capability indigenous artisanal brand chocolate manufacturers

Source: DTI



The Rise of Philippine Cacao-Chocolate

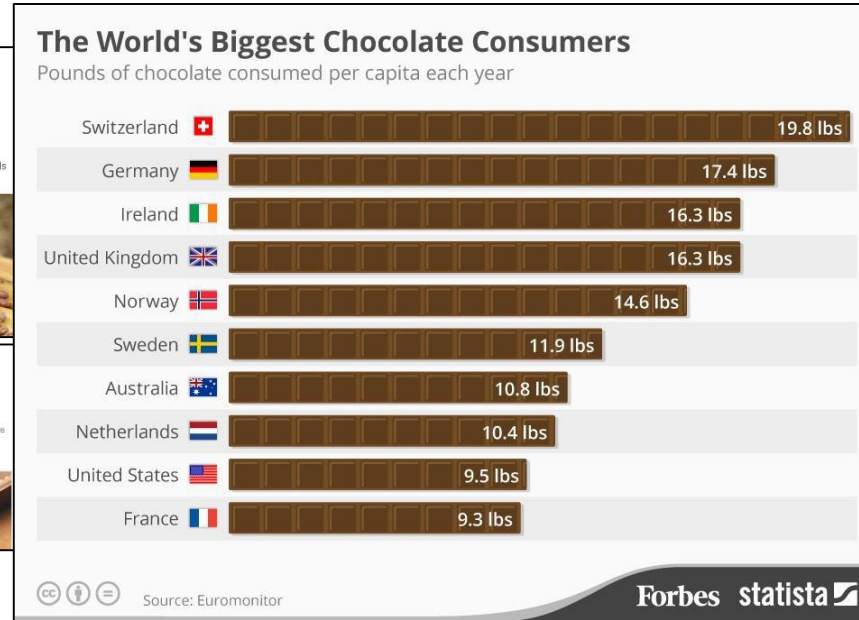
The Philippine cacao-chocolate industry has emerged with the rise of indigenous brand chocolate manufacturers, the achievement of multiple international awards, and the export success to high quality markets



Indigenous Philippine Brand Chocolate Manufacturers



Multiple International Product Awards Across the Value Chain



Cracking High Quality Demanding Markets in Western Europe

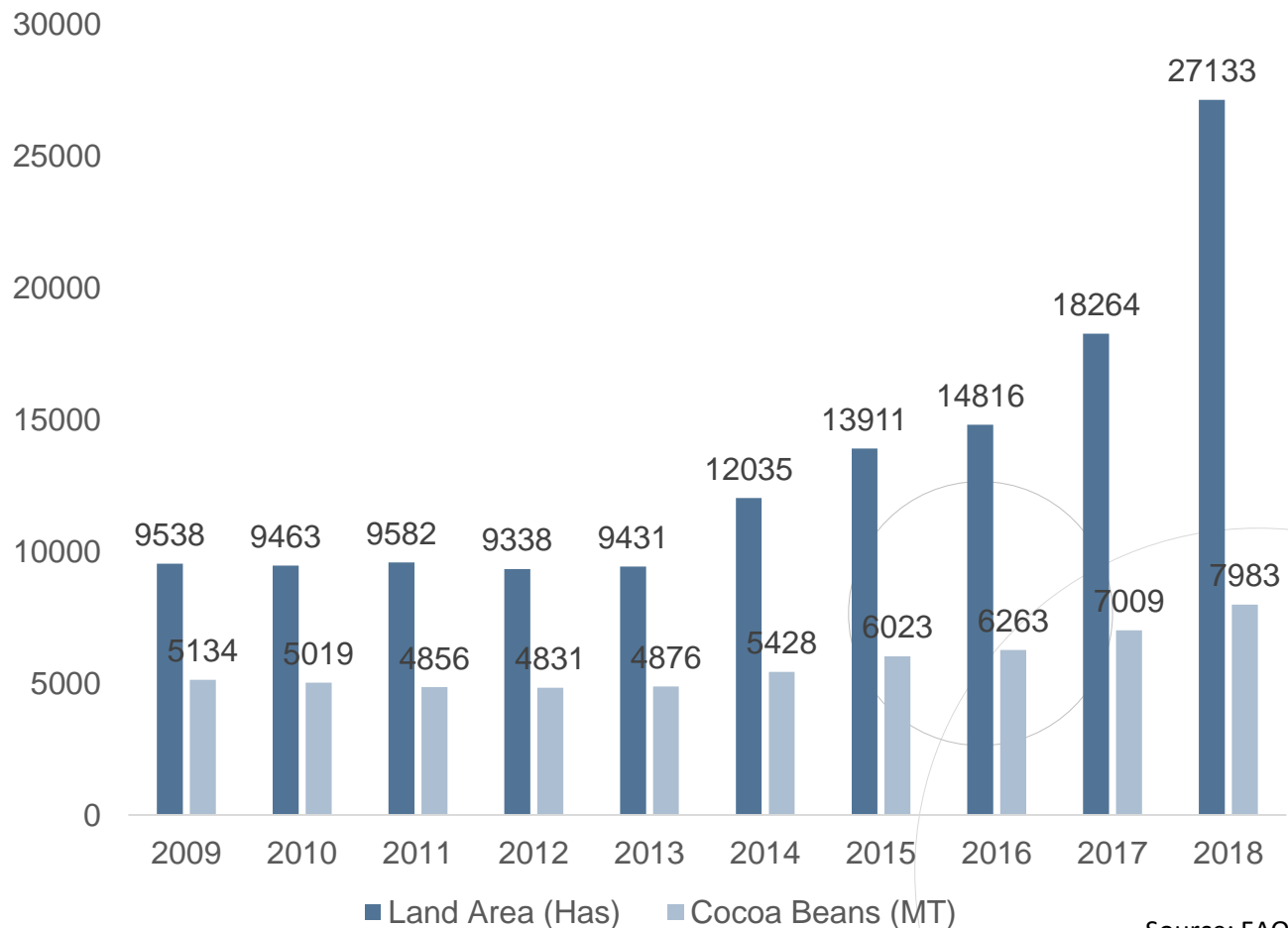
All these signal significantly high levels of firm capabilities and ability to functionally upgrade in the GVC.



Industry Challenges

Low productivity and limited space for higher value added segments are among the challenges the industry faces to take advantage of domestic and global windows of opportunities

Cacao Beans Production by Land Area and Cacao Beans, 2009 to 2018



Source: FAO

- Cacao bean production in the Philippines remain low at only 8,000 MT annually. Productivity is also below global standards at just 0.5MT/HA.
- Cacao bean production geared towards commodity cacao, which has severe regional competition from Indonesia and Malaysia
- Industrial upgrading prospects are hampered by commodity cacao trading crowding out fine flavor cacao bean production with high forward linkages to high value-added artisanal brand chocolate manufacturing
- Fine flavor cacao bean production and brand chocolate manufacturers are limited to a few players due to lack of widespread capabilities and knowledge diffusion



Industrial Organization

Indigenous firms dominate all stages of the value chain but only firms in cacao bean production and artisanal brand chocolate manufacturing has the highest domestic linkage and highest value added potential

Production of Cacao Beans

Dominated by smallholders; over 70% is in Davao cluster

3 large traders aggregate smallholders through contract farming and sells to regional grinders

Commodity cacao crowds out fine flavor cacao

Kennemer Foods
Chokolade de San Isidro
Casco Commodities

Roasting, Grinding and Pressing

Two indigenous firms who marginally export but mainly sell to domestic market, imports inputs from regional grinders

Main business is still bulk brand chocolate manufacturing business

Commonwealth Foods
TP Food

Bulk Brand Chocolate Manufacturing

Indigenous firms mainly serve domestic and regional markets while foreign firms that dominate have import operations

Only three large domestic manufacturing firms who largely import inputs from regional grinders results in low linkage and value added products

Universal Robina
Commonwealth Foods

Artisanal Brand Chocolate Manufacturing

Vertically integrated indigenous firms with high linkage and value added

Exports to more demanding consumption markets in Europe and North America

Ability to garner multiple industry awards

Auro Chocolate
Malagos Agri-Ventures
Theo and Philo

The Philippine Cacao Industry Roadmap

Developed by industry under the direction of the DTI, the roadmap expresses the ambitions and strategy of the Philippine cacao industry

2017-2022 Philippine Cacao Industry Roadmap



K2 BR 25 PBC 123 K9 UF-18



Goal and Targets:

- Increase production of fermented cacao by 40% per year;
- Increase production productivity to 2 kg/tree/year;
- Ensure availability of cacao beans to support and sustain value-adding activities
- Contribute to the goal of attaining inclusive growth and poverty alleviation through increase in farmers' income to at least PhP130,000 per hectare per year
- Increase export sales by at least USD 250-M per year
- Generate at least 150,000 jobs by 2022

Strategy:

- Focus on fine flavor cacao bean competitiveness to avoid saturated commodity space and provide better domestic linkages for brand chocolate manufacturing sector

Action Plan

- Build institutional foundations through regional councils and national board composed of government (DTI, DA, DOST), industry and academe
- Expand production through knowledge base and capacity improvement through public R&D, provision of farm infrastructure and post-harvest facilities, and skills training
- Support business management and entrepreneurship through market linkage programs, public financing and skills training



The Philippine Cacao-Chocolate Upgrading Strategy

Developed by foreign consultants under direction of DTI, the upgrading strategy recommends a linear trajectory path traditionally undertaken by producer countries

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The Philippines in the Cocoa-Chocolate Global Value Chain

Highlights

- The Philippines' current involvement in the cocoa-chocolate GVC is limited as it primarily acts as an importer of immediate and final products for domestic consumption.
- Despite many competitive advantages, the country's exports remain low as it ranks 72nd in terms of exports, as its global market share of less than 0.01%.
- The primary challenges to Philippine participation in the chain are the low volumes of cocoa beans and farm-level issues, constraining upgrading into higher processing stages.
- The country's most pronounced strengths is related to its geographic conditions that allow for growth of higher-value cocoa beans across the country, as well as its location, which is close to emerging markets.

Introduction

The cocoa-chocolate global value chain (GVC) connects cocoa bean producers with manufacturers and consumers of chocolate in a multimillion-dollar industry. The production mostly takes place in developing countries, while the manufacturing and distribution of end products occur in developed nations. Over the last decade, the demand for chocolate has grown rapidly, motivating several countries already in the industry to further improve their production, and for other nations to take part in the value chain. It is in the interest of the Philippines with its capacity to produce cocoa beans, to take advantage of increased global demand and the need for additional players in the value chain.

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The Cocoa-Chocolate Global Value Chain

The Cocoa-Chocolate Global Value chain covers the agricultural stages of cocoa bean production, mid-stream manufacturing processing of cocoa beans into intermediate products as well as the production, marketing and distribution of

The Philippines in the Cocoa-Chocolate Global Value Chain 1

Goal and Targets:

- Process Upgrading: Increase domestic production of cocoa beans for export and local processing
- Process Upgrading: Certification of production
- Product Upgrading: Diversify the varieties of cocoa beans produced in country
- Functional Upgrading: Move into semi processed segments of chain on a large scale (Roasting & Grinding)

Strategy:

- Linear upgrading trajectory where stable and competitive production of cacao beans need to be secured first and before moving into semi-processing

Action Plan

- Market linkage programs
- Funding for processing facilities and logistical support
- Entrepreneurship training
- Investment incentives



Stakeholders and Supporting Institutions

These include government, industry associations and NGOs playing support, coordination and linkage roles

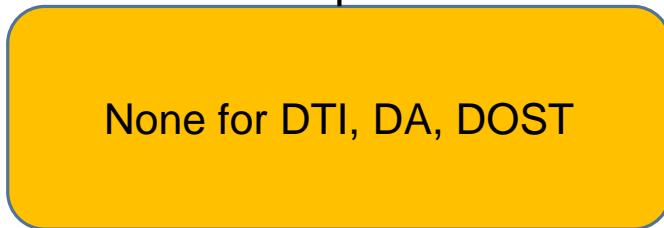
Actor	Description	Role
Department of Agriculture (DA)	Government body responsible for design and implementation of agricultural policy in the industry	Developed the industry roadmap as overall policy framework; provides technical assistance
Department of Agriculture, High Value Crops and Development Program (HVCDP)	DA program promoting production, processing, marketing and distribution of high value crops by working closely with smallholders and farmers	Provides extension services, inputs and training to improve production techniques.
Philippine Council for Agriculture and Fisheries (PCAF) Sub-committee on Cacao	Sub-committee of the DA that coordinates various actors across the coca value chain	Convenes the private sector to discuss industry development plans
Department of Science and Technology (DOST)	Government body mandated with the leadership and coordination of science and technology efforts. It also is the facilitator of technological transfer	Conducts R&D and transfer of new production inputs, machinery and techniques to improve producer competitiveness
Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD)	Apex organization under DOST that coordinates and supports the national network of public research institutes and universities in conducting R&D in crops, livestock, forestry, fisheries, soil and water, and mineral resources.	Conducts public R&D and training on cacao production, primarily variety development and disease management
Department of Trade and Industry (DTI)	Sets, reviews and approves applications for investment incentives and implements industry development plans	Leads the implementation of the roadmap and other industry development initiatives
Cacao Industry Development Association of Mindanao Inc. (CIDAMI)	Industry association that links government, non-government organizations and cacao stakeholders across Mindanao and facilitates development	Provides technical assistance in cacao production and agri-business; represents industry interests to government
Cacao Foundation of the Philippines (CacaoPhil)	Umbrella organization of the industry that plays stakeholder linkage and industry development role	Similar to CIDAMI, provides technical assistance but also operates post-harvest centres; coverage is beyond Mindanao
ACDI/VOCA	International non-profit focused on agriculture providing technical assistance and market linkage to government and farmers	Leads project focused on value chain development by providing both farm-level and processing-level interventions; also focused on global market linkage formation



Deficit 1: Coordination Failure

Inter-firm, inter-ministerial and government-industry coordination are severely lacking

Institutional Mechanism for Coordination



Characteristics

- Gridlock between commodity cacao and fine flavor cacao producers with different interests
 - Decision-making often dependent on top leadership, gridlock leads to unilateral decisions
 - Lack of buy-in or ownership from members with divergent views
 - Leads to breakdown of peak association into inactivity and fragmentation to different organizations
-
- Private-public council led by President of CIDAMI and Undersecretary of DA and DTI.
 - Created during launch of roadmap in 2017 but has remained informal.
 - Cacao industry development being spearheaded by regional DTI office instead
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- No coordination mechanism to unlock synergies between each ministry's interventions
 - For example, DTI's shared service facility (SSF) program does not procure equipment developed by DOST while DA and DOST conduct separate trainings and knowledge transfer that are redundant if not conflicting
 - No high-level government official deeply involved; only mid-level regional directors



Deficit 2: Consultation Failure

Lack of institutionalized mechanisms for public and private consultation result in ineffective policies

Science, Technology and Innovation Programs

- Public R&D agenda are unilaterally determined by DOST, without meaningful consultation from private sector needs that has resulted in ineffective interventions. For example;
 - Cacao variety/clone R&D failed to incorporate flavor development critical for added value
 - Replacement of wooden fermentation boxes with stainless steel despite wood's necessity in fermentation
 - Sub-standard cocoa processing equipment developed are not used by beneficiaries
 - Standardization of fermentation protocols that technically varies according to terroir and the source of competitive differentiation

Industry Development Programs

- Consultation is fragmented with individual firms, leading to programs designed for each firm's needs rather than overall industry goal. For example;
 - Public financing programs partner with large bulk cacao producer by requiring exclusivity contracts from farmers for financing access. Consequence is the crowding out fine flavor firms/buyers.
- Absence of consultation with brand chocolate manufacturers lead to no targeted program to support the development of the chocolate manufacturing industry



Deficit 3: Credibility Failure

Expressed policies and strategies are not being followed, signaling failures in the policy development process

Policy Development Process

- Government identifies priority strategic industries that require a roadmap/strategy
- Industry association and/or external consultants and experts leads roadmap development and policy or strategy formulation
- Little meaningful involvement of stakeholders outside largely ceremonial “workshops” where participants just voice out concerns. Meaningful consultation limited to industry association leadership.
- Broad recommendations based on experts analysis, usually referenced to foreign “best practices” without incorporating local realities
- Limited details on sub-actions, KPIs, responsibility and monitoring

Outcomes

- Industry association’s coordination deficit and lack of meaningful stakeholder involvement leads to absence of policy ownership and legitimacy from “outsiders”
- Outsourcing to external consultants/experts rob policymakers of “policy discovery” opportunity
- Bias towards foreign best practices fail to consider local realities and develop strategies building on local successes, rather than transplanting foreign models
- Broad recommendations with limited details on sub-actions, KPIs, responsibility and monitoring create discretionary space for implementing agencies. Without effective consultation mechanisms at the agency-level, interventions are rendered ineffective.

Adopted policies and strategies lack policy ownership or credibility from a broad range of stakeholders, leading to implementation failure



Public-Private Interactions

There are several issues that hamper effective public and private interactions, with issues stemming from both government and private sector

Issues	Characteristics
Primary interaction with industry association	Industry association has coordination deficit and does not effectively represent whole industry's interests
Bias towards largest production/trading firms	Value chain integration approach in policy leads to institutionalized partnerships between government and largest firms at the expense of others (smaller firms but higher value added)
Lack of funding for joint private-public R&D	Public research institutes expect private firms to approach them. Sometimes, PRIs approach private firms for joint R&D but expect costs to be borne by firms
Knowledge and policy bias towards foreign firms and models	Government interventions are based on knowledge provided by foreign firms or foreign policy models that fail to consider local realities and successes
Attribution of credit	Industry respondents suggest that government's unilateral policy interventions are borne out of their desire to be attributed the credit for the industry's growth.



Private Sector Response to Policy and Institutional Weakness

Without effective systemic support, firms' capabilities are largely built in global knowledge networks. Firms with high capabilities and upgrading evidence are few and far between.

Knowledge/ Competencies required	Firm A (Upgraded) Knowledge Acquisition Process	Firm B (Upgraded) Knowledge Acquisition Process	Firm C (Not Upgraded) Knowledge Acquisition Process
Industrial Chocolate Manufacturing Processes	Engagement with a foreign specialist on general industrial chocolate manufacturing Acquisition of chocolate manufacturing equipment and technology	Enrolled in a formal course in industrial chocolate manufacturing in Germany; Engagement with a foreign manufacturing operations specialist Acquisition of leading chocolate manufacturing equipment and technology	N/A
Chocolate Composition and Branding/Marketing	Imitation/emulation of global competitors Internal trial and error	Imitation/emulation of global competitors Internal experimentation and formal R&D	N/A
Cacao Bean Production and Post-Harvest Techniques	Technical assistance from lead firm Mars, Inc. sustainability intervention (no buyer-supplier relationship) Engagement with the same foreign specialist on chocolate manufacturing	Internal experimentation and formal R&D Engagement with a foreign post-harvest practice specialist	Technical and market assistance from lead firm Mars, Inc. (no buyer- supplier relationship) Internal trial and error
Innovation and Product Development	Imitation/emulation of global competitors Internal trial and error	Internal experimentation and formal R&D Engagement with food manufacturers in non- chocolate but related industries	N/A



Private Sector Response to Policy and Institutional Weakness

In building capabilities, source and sequence of learning and type of internal effort matters

Source

- Knowledge transfer from global lead firms are selective and limited, tailored to buyers needs
- Knowledge transfer from specialists and consultants are also selective and limited, tailored to client needs
- Knowledge transfer from schools/formal courses are general but expansive

Need for search and evaluation capacity built on expansive, even if general, knowledge base to recognize relevant knowledge in a global pool

Sequence

- Acquire general and expansive codified aspects of knowledge through formal courses/schools
- Internal experimentations to understand tacit knowledge components
- Engagement of foreign specialist or firms for more specific knowledge transfer relevant to firm

Knowledge networks are also subject to governance patterns. Such a sequence avoids being trapped in captive knowledge networks

Internal Effort

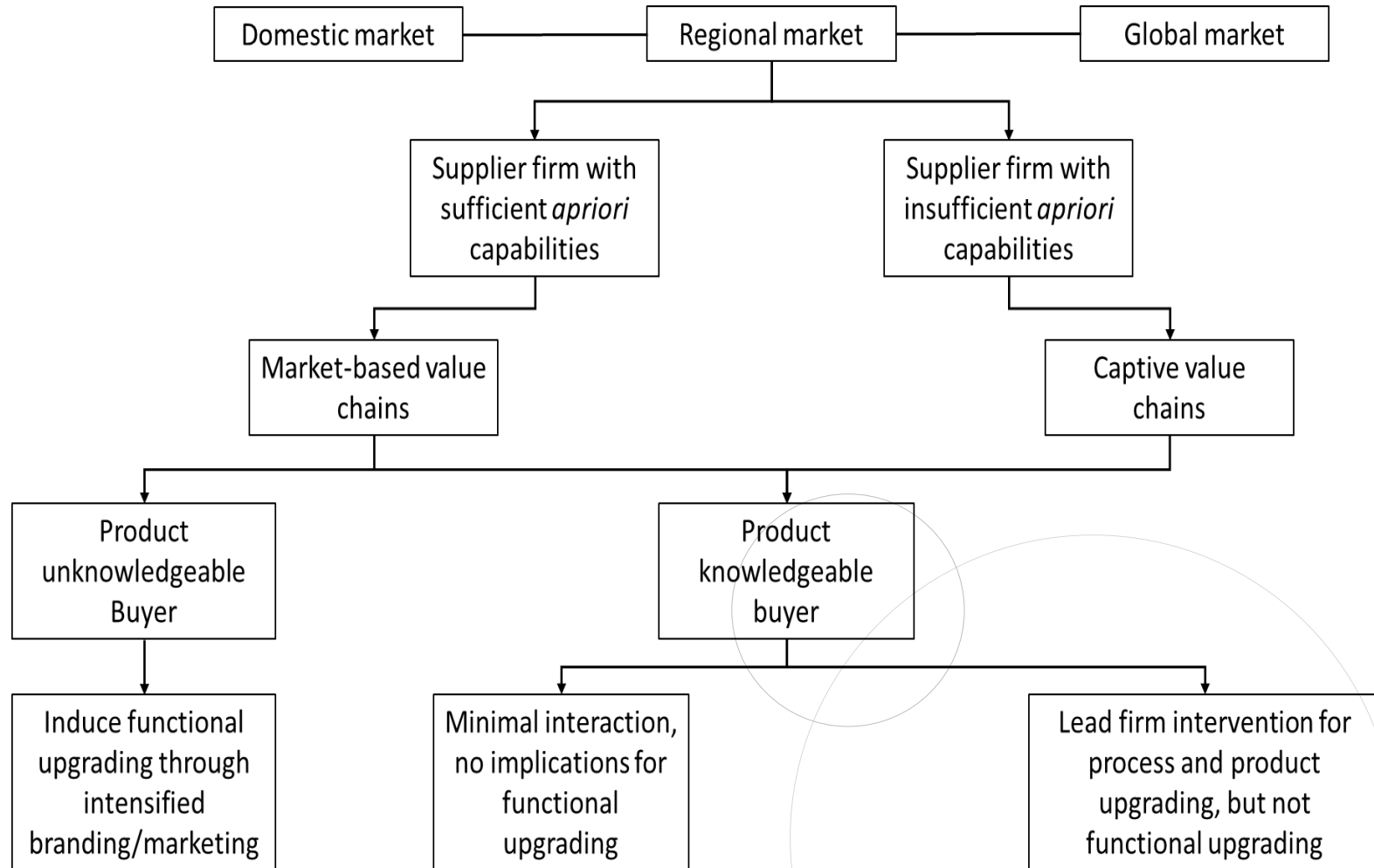
- Formal technical team with necessary skills and competencies in chemistry, food science and engineering
- Absence of technical team and reliance on internal trial and error/experimentations

Technical teams are better able to recognize, access and assimilate external knowledge as well as engage in innovation activities for competitiveness



Private Sector Response to Policy and Institutional Weakness

Firms further build capabilities and upgrade according to the type of buyer they engage, regardless of whether it is a domestic or export market



- Governance is not a function of type of market, but dependent on supplier firm *apriori* capabilities built elsewhere
- Market-based value chains can have impact on functional upgrading depending on buyer's knowledge level
- Product unknowledgeable buyer (outside GVC) induces functional upgrading due to information asymmetry
- Product knowledgeable buyer (within GVC) has no implications for functional upgrading



Recommendations: Policy Change and Institutional Reform

Understanding firms capability development needs, which learning channels are effective and how learning occurs is required to develop tailored and effective policy interventions

Policy Area	Current Policy/Problem	Guideline	Policy Options
Industry Development	Financing programs designed invariably benefit bulk bean producers, crowding out fine flavor beans	Shift from value chain integration financing to value capture financing	Remove exclusivity clause in contracts and let both fine flavor and bulk bean producers/traders compete in bean purchasing to diversify commercial and knowledge links
	Ineffective training programs for cacao bean producers and no specific program for brand chocolate manufacturers	Targeted support to cacao bean producers and chocolate manufacturers by incorporating effective learning mechanisms	Play linkage role with foreign specialists rather than value chain buyers as knowledge sources, cognizant of advantageous learning sources and sequences
			Blanket R&D tax credits shift towards R&D personnel to encourage formation of technical teams
Linear upgrading trajectory path up to mid-stream processing	Build on existing local successes rather than following traditional paths	Target support to co-development of existing successes of fine flavor and artisanal brand chocolate manufacturing	
Science, Technology, and Innovation	Exclusive focus on R&D programs supporting quantity expansion of cacao bean production	Shared focus on R&D programs supporting quality improvement and chocolate manufacturing	Incorporate flavor development into cacao bean R&D and training programs
			Shift from ineffective manufacturing equipment R&D to process R&D such as plant operations and set-up to address binding constraints in capabilities building
Trade and Investment	Focus on GVC integration of bulk cacao bean producers	Focus on targeting value capture within GVCs through upgrading	Export taxes on bulk cacao beans to encourage fine flavor beans and local processing; revenues to be used for a stabilization fund to support minimum prices in global price downturns
			Buyer linkage programs tailored to capability levels with upgrading goal; i.e., producer firm in bulk beans link to fine flavor buyers to facilitate upgrading
			Shift from FDI attraction to indigenous firm development in filling value chain gaps



Recommendations: Policy Change and Institutional Reform

Effectiveness of interventions are dependent on institutional strength in policy design and implementation

Institutional Deficit	Current Problem	Guideline	Policy Options
Credibility	Disconnect between private and public action vis-a-vis mutually agreed expressed goals, policies and strategies	Goals, policies and strategies must be formulated with meaningful participation and broad consensus from relevant stakeholders to ensure ownership and facilitate credible commitment to expressed goals, policies and strategies	Reform industry roadmap development process by institutionalizing meaningful participation of all stakeholders in steering committees, task forces and drafting teams to encourage debate and consensus, rather than token consultation and simple approval at the end
			Incorporate mutually agreed detailed action plan matrix with responsibility assignment, quantifiable targets/expected outputs, and monitoring mechanism in the roadmap development process, rather than letting implementing agencies unilaterally fill details to broad recommendations
Coordination	Industry association-driven coordination face internal governance issues due to conflicting interests	Coordination mechanisms need to be strengthened by enhancing information exchange, decision making and enforcement powers	Institutionalize a single autonomous authority like a statutory Cacao Board comprised of peak stakeholder organizations with strong coordination capabilities and relevant government agencies. Provide such authority with quasi-legislative powers to decide via consensus and implement decisions
	Inter-agency coordination is weak and resulting policies are incoherent		
Consultation	Lack of meaningful consultation between public and private sector in formulating and implementing policy interventions	Institutionalize consultation mechanisms at the policy design levels and implementation levels	Require formation of consortiums or special purpose vehicles comprising of government, industry and academia to access financial incentives such as grants and loans for programs such as in R&D

ULTIMATELY, INDUSTRY AND THE GOVERNMENT MUST THEMSELVES EMBARK ON THE PAINSTAKING POLITICAL PROCESS OF BUILDING EFFECTIVE INSTITUTIONS TO MANAGE THE DEVELOPMENT OF THE PHILIPPINE CACAO-CHOCOLATE INDUSTRY

