**Discussion Paper Series** | 2024-04 | ISSN 2619-7448 (Print) ISSN 2619-7456 (Online)

**PROGRAM ON ESCAPING THE MIDDLE INCOME TRAP: CHAINS FOR CHANGE**

# Frameworks that Inquire, Describe, and Explain

## Using Frames and Tools to Enhance Project Assessment with a Multipurpose Cooperative as Illustrative Example

*Jane Lynn D. Capacio, Marieanne Itol, Joie Maymay, Anna Amalia Brillante-Vibar, and Tara Alessandra Abrina*

UNIVERSITY OF THE PHILIPPINES
CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES

**UP CIDS | DISCUSSION PAPER SERIES**

is published by the

**University of the Philippines**
**Center for Integrative and Development Studies**
Lower Ground Floor, Ang Bahay ng Alumni
Magsaysay Avenue, University of the Philippines
Diliman, Quezon City 1101

**Telephone:** (02) 8981-8500 loc. 4266 to 4268 / (02) 8426-0955
**Email:** cidspublications@up.edu.ph
**Website:** cids.up.edu.ph

---



**ISSN 2619-7448 (Print)**
**ISSN 2619-7456 (Online)**

---

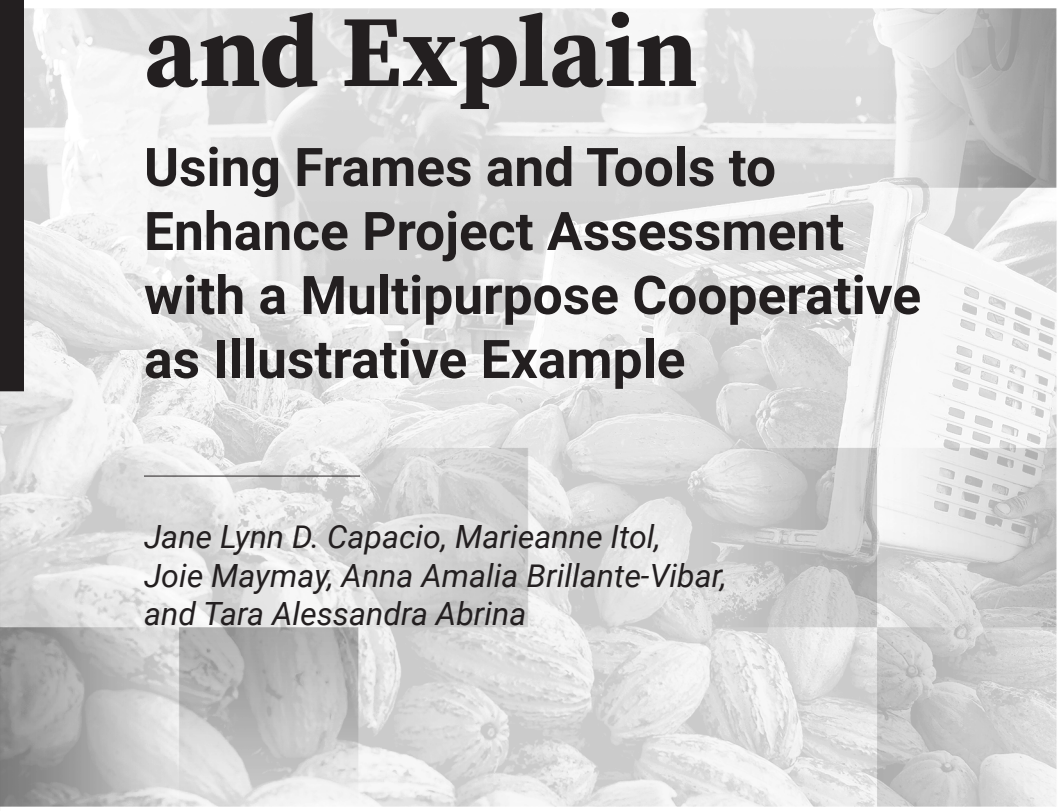
**Cover image credit**
"Cocoa farmers are harvesting fresh cocoa produce."

NARONG. Adobe Stock. https://stock.adobe.com/ph/images/cocoa-farmers-are-harvesting-fresh-cocoa-produce/480147182

PROGRAM ON ESCAPING THE MIDDLE INCOME TRAP:
CHAINS FOR CHANGE

# Frameworks that Inquire, Describe, and Explain

## Using Frames and Tools to Enhance Project Assessment with a Multipurpose Cooperative as Illustrative Example



*Jane Lynn D. Capacio, Marieanne Itol,*
*Joie Maymay, Anna Amalia Brillante-Vibar,*
*and Tara Alessandra Abrina*

# Frameworks that Inquire, Describe, and Explain

## Using Frames and Tools to Enhance Project Assessment with a Multipurpose Cooperative as Illustrative Example

*Jane Lynn D. Capacio, Marieanne Itol, Joie Maymay, Anna Amalia Brillante-Vibar, and Tara Alessandra Abrina*[1]

### Abstract

Cooperatives are often faced with concerns about the viability of their programs and projects, especially that these impact their financial sustainability. "Wrong" projects could bankrupt cooperatives and cause problems for involved members. This paper aims to address this issue by introducing four frameworks, and applying them to an actual organization, facilitating in-depth analyses and recommendations. Resource-based view, industry analysis, institutional analysis, and

1 Jane Lynn Capacio (jdcapacio@up.edu.ph) is a Senior Research Analyst and Tara Alessandra Abrina (tsabrina@up.edu.ph) is a Research Fellow of the Escaping the Middle-Income Trap: Chains-for-Change Program (EMIT C4C) of the UP Center for Integrative and Development Studies (UP CIDS). Marieanne Itol and Joie Maymay were former Program Officer and Area Officer of the Peace and Equity Foundation (PEF), respectively. Anna Amalia Brillante-Vibar is Senior Program Officer for Collaboration of PEF.

value chain analysis are discussed using an anonymized farmers' cooperative as an illustrative example. Through these frameworks, several findings emerged. First, the cooperative has limited and outdated information about the industries that it is involved in. Second, many industry analyses on the internet often overlook the assessment of the Philippines' competitiveness on a global scale. Third, the cooperative is a recipient of numerous projects that challenge its capacity to manage multiple enterprises and equipment. The study underscores the need for government and other partners to help cooperatives in assessing industries and value chains. This includes making available free, internet-accessible, and easily understandable information and analyses on industries and value chains. Such resources can inform the decision-making of cooperatives.

## Introduction

A Philippine universal bank convinced farmer members of a multipurpose cooperative ("the Cooperative")[2] to produce wholesale palm oil.[3] The farmers planted palm trees on approximately 500 hectares of land between the provinces of Davao del Norte and Davao de Oro (formerly Compostela Valley). The bank provided the Cooperative a production loan with a three-year grace period. In the beginning, the farmers and the Cooperative experienced windfall gains from the rise in palm oil prices and the illusion of high profits because of the grace period. After those initial years, prices plunged, and Typhoon Pablo (international name Bopha) devastated many farms in 2012. From its original loan exposure of ₱24 million for palm oil, the cooperative borrowed an additional ₱9 million, which resulted in a ₱30 million debt. The bank insisted on full repayment and even

2 Despite numerous efforts, EMIT C4C and PEF were not given the opportunity to validate the results of this study with the Cooperative. To maintain relations with the Cooperative and to respect the safe learning space that EMIT C4C assured during data gathering, the Impact Team decided to anonymize the Cooperative in this study. Moreover, since the COVID-19 pandemic, PEF has moved out of where the cooperative was located.

3 Extracted from Annette Pelkmans-Balaoing's briefing paper (unpublished) on palm oil that EMIT C4C shared with the Cooperative.

suggested that the cooperative avail additional loans to rehabilitate the farms. Some of the farmers abandoned their palm oil farms because of the effects of low prices and debt burden, which left hardly any income for them.

This predicament is not unique to the Cooperative alone. Numerous cooperatives have found themselves in situations where they have regretted engaging in projects or entering partnership and loan agreements. Unlike large and established business enterprises, cooperatives do not have the information and exposure to big businesses that could guide them in decision-making processes. Moreover, even if they have the means to study the publicly available industry and value chain analyses, much of this information is incomplete and fails to highlight risks and red flags that must be considered prior to any major intervention.

This paper was originally designed as a case study borne out of the action research of UP Center for Integrative and Development Studies (UP CIDS) Escaping the Middle-Income Trap Chains-for-Change Program (EMIT C4C) and the Peace and Equity Foundation (PEF). Because the COVID-19 pandemic made it difficult to undertake fieldwork and even online meetings, EMIT C4C and PEF decided to transform the research from a cooperative-focused case study into a paper that demonstrated various frameworks using the Cooperative as an illustrative model. Much appreciation is given to the EMIT C4C and PEF Impact Team for writing this paper.[4]

In using the frameworks to analyze the Cooperative, the following realizations became evident. First, the Cooperative, like other cooperatives in the Philippines, does not have access to reliable, updated, and easily understandable information and analyses of crops, industries, and value chains. Consequently, engaging in new businesses within these realms is often based on decisions that lack sound analytical foundation. The Cooperative in this case study also lacks awareness on whether the industries it is involved in (coconut, cacao, rubber, and various vegetables) are competitive in relation to other regions and countries, or whether it is a competitive force in the industry and the value chain.

4 The Impact Team is composed of the authors of this paper.

Second, internet-sourced industry analyses are often incomplete. A user needs to collate the information and probe it further to make it useful. In this paper, the brief industry analysis of coconut, cacao, rubber, and palm oil was gathered from multiple sources. However, even with these efforts, the information remained insufficient because most of the papers studied the crops and industry only from a domestic lens.

Third, in looking at the cooperative's resources, this research found out that human resources could not be easily changed. Organizations prefer to hire or promote people from within their network rather than tap new ones outside of it, assuming they are available. This stickiness of human resources underscores the need to equip second-liners in cooperatives with the needed skills to take on other functions.

The next section explains the frameworks and tools that are used in analyzing the Cooperative's resources and capabilities, the crops, industries, value chains, and institutional environment. Section 3 discusses the findings on the cooperative's resources and capabilities, involvement in key industries, and institutional context. Section 4 continues the analysis and presentation of findings with a deep dive into the interplay of the frameworks. The last section reiterates the major conclusions and itemizes recommendations, not only for PEF and the Cooperative but also for other stakeholders like government agencies and other farmers' cooperatives.

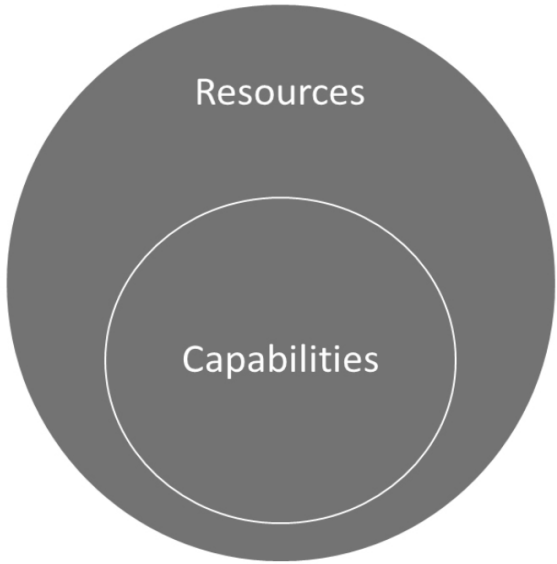
## Turning the Case Study Inside Out

EMIT C4C recommends the use of four frameworks to analyze cooperatives. These frameworks, which are often used in management studies, particularly in strategy management, will provide lenses to analyze social enterprises (i.e., the Cooperative), its crops/industries (e.g., cacao, coconut), and the institutions or the rules of the game. Peng et al. (2009) describe three frameworks that constitute the "strategy tripod": (a) resource-based view, (b) industry analysis, and (c) institutional analysis. Value chain analysis, which is the main framework and tool employed by EMIT C4C in its action research, will be interspersed in the three frameworks.

## A. Resource-based View

What are the resources and capabilities of a firm that can be construed as its sources of competitive advantage and disadvantage? As a framework that looks at the internal strengths and weaknesses of a firm, the resource-based view (RBV) can also reveal whether the resources and capabilities of an enterprise could seize potential opportunities and mitigate threats.

Barney and Hesterly (2008) defined *resources* in the RBV as the assets that an enterprise controls that it can use to think of strategies and eventually implement them. *Capabilities* are "a subset of an enterprise's resources" and are defined in RBV as "the tangible and intangible assets that enable a firm to take full advantage of the other resources it controls" (Barney and Hesterly 2008, 74). In other words, having resources or assets is one thing; being capable to use them is another. Resources and capabilities can be broadly categorized. Table 1 shows possible categories and their description.




■ Figure 1. The resources of a firm include its capabilities to maximize its resources, manage risks, and minimize threats (Drawn by authors)

| Broad Categories | Description |
|---|---|
| Financial Resources | • "Financial resources include all the money, from whatever source, that firms use to conceive of and implement strategies" (p. 74)<br>• These include, in the case of a cooperative like our example, cash savings and loan payments from members, etc.<br>• A cooperative allocates significant financial resources to fulfill its social/environmental mission. |
| Physical Resources | • "Physical resources include all the physical technology used in a firm. Examples are "plant and equipment," "geographic location," and "access to raw materials" (p. 74).<br>• These include every medium and big equipment that the cooperative has purchased or donated.<br>• It also includes the cooperative's geographical location. |
| Human Resources | • These "include the "training, experience, judgment, intelligence, relationships, and insights of individual managers and workers in a firm" (p. 74).<br>• These include insights on the cooperative's board of directors, management, and staff. What information, network, and capabilities do they have to manage resources? |
| Organizational Resources | • This is treated as "an attribute of groups of individuals" (p. 75).<br>• These include "formal reporting structure, its formal and informal planning, controlling, and coordinating systems, its culture and reputation; as well as informal relations among groups within a firm and with external relations (p. 75).<br>• What aspects of the cooperative's culture, structure, formal and informal processes, and reputation can we consider as resources? Do these resources exploit or maximize resources, add revenues, lessen cost, or extinguish threats? |

■ Table 1. Classifying resources and capabilities as defined by Barney and Hesterly 2008

There are two important assumptions in using RBV. One is "resource heterogeneity" or the premise that "different enterprises may have varying *bundles* of resources and capabilities, even if they are competing in the same industry" (Barney and Hesterly 2008, 75). This has two implications: (a) that for any business activity, some enterprises or cooperatives may be more skilled than others and (b) that an enterprise should be viewed or "assessed" using its own bundle of resources and capabilities (p. 75).[5] The other assumption is "resource immobility" or the premise that "some resources and capabilities are long lasting" because these were acquired or were costly to develop (p. 75).

5 Emphasis of "own" by the writers.

In analyzing groups using RBV, their resources and capabilities must first be itemized. The listing should be as exhaustive as possible. Afterward, the participants of the RBV exercise should agree on assigned meanings. One way to do so is by using the broad categories suggested by the literature (see Table 1). Also, the itemized resources and capabilities must be gauged based on their value, rarity, inimitability, and organization (VRIO). Table 2 explains VRIO in more detail.

| VRIO Test | Questions |
|---|---|
| Are the resources and capabilities valuable? | • Is the resource valuable to the cooperative's stakeholders (e.g., members, suppliers, buyers)? Does it enable the cooperative "to exploit an opportunity and/or neutralize an external threat?" (p. 77). For instance, when this resource is used, does it add revenue or lessen cost?<br>• What does the *value chain* look like? What are the cooperative's distinctive resources and capabilities in the coconut and cacao value chains? |
| Are the resources and capabilities rare? | • "Is the resource controlled by only a small number of competing enterprises" (e.g., traders) (p. 84)?<br>• Note that if it is valuable but common, then it is still a strength, a means for survival. |
| Are the resources and capabilities inimitable? (i.e., are they replicable or substitutable?) | • Do other firms or enterprises without the particular resource "face a cost disadvantage in obtaining or developing them relative to those who already have the resource" (p. 85)?<br>• Since the resource is rare, will other cooperatives find it easy to imitate it?<br>• Can other groups (e.g., traders, buyers) duplicate or substitute the cooperative's resources?<br>• Resources can be rare for one or a combination of the following reasons:<br>  • The ability of the cooperative to get the resource is based on *unique historical conditions* (e.g., a time of difficulty). Cooperatives are historical and they acquire resources based on "their place in time and space" (p. 86).<br>  • More often, when resources are complex, interconnected, and implicit, then they can give a cooperative "sustained competitive advantage" (p. 87).<br>  • The resource that gives competitive advantage is socially complex. This could include organizational culture. |
| Are the resources and capabilities organized? | • Are the cooperative's policies and procedures "organized to exploit the full competitive potential of its resources and capabilities" (p. 90)?<br>• What are these complementary resources and capabilities (organizational structure, organizational culture)?<br>• Note: In isolation, complementary resources will not make an enterprise competitive. But if used with VRI resources and capabilities, these can be a basis of competitive advantage. |

■ Table 2: Value, Rarity, Inimitability, and Organization (VRIO) based on Barney and Hesterly 2008

A resource or capability that meets all (VRIO) requirements is definitely a source of sustained competitive advantage. Table 3 shows how VRIO is analyzed.

| Valuable? | Rare? | Costly to imitate? | Exploited by the cooperative? | Implications for competitiveness | Strength or weakness? |
|---|---|---|---|---|---|
| No | | | | Competitive disadvantage | Weakness |
| Yes | No | | | Competitive parity (important for survival) | Strength |
| Yes | Yes | No | | Temporary competitive advantage | Strength & distinctive competence |
| Yes | Yes | Yes | Yes | Sustained competitive advantage | Strength & distinctive sustainable competence |

■ Table 3: Applying VRIO
Source: Barney and Hesterly (2008, 92)

## B. Industry Analysis

Industries may seem different from one another, but Michael Porter (2008, 25) argued that "the underlying drivers of profitability are the same" for all industries. When one analyzes an industry's underlying structure in terms of its competitive forces, the resulting analysis can become industry-agnostic. Note, however, that "[t]he configuration of the forces differs by industry" (p. 26).

Porter (2008) itemized the typical steps for conducting industry analysis. Since the Cooperative is involved in coconut, cacao, palm oil, rubber, and vegetable industries, each of these crops should be analyzed in the sequential manner as itemized in Table 4. These are the key considerations in analyzing each industry.

| Typical Steps in Conducting Industry Analysis | Questions |
|---|---|
| Define the relevant industry | • What products do coconuts, cacao, vegetables, rubber, and palm oil produce? To which industries do these products belong?<br>• What is the geographic scope of competition? |
| Identify the participants and segment them into groups | • Who are the buyer and the buyer groups per crop?<br>• Who are the suppliers and the supplier groups?<br>• Who are the competitors?<br>• What are the substitutes?<br>• Who are the potential entrants? |
| Assess the underlying forces | • Which players are strong in each crop? Why are they strong?<br>• Who are weak? Why are they weak? |
| Determine the overall industry structure and test the analysis for consistency | • Is the industry productive? Why?<br>• What forces control profitability?<br>• Is the industry analysis consistent with actual long-run profitability?<br>• Are more profitable players better positioned in relation to the five forces? |
| Analyze recent and likely future trends in each force, considering both positive and negative aspects | • For each product and crop, what is the current bargaining power of suppliers and customers? Are there current threats of new entrants and substitutes? Are there competitors? Is there rivalry among competitors?<br>• In the next few years (which can be determined depending on the life cycle of crops), how do we imagine the crop or product's suppliers, their customers, and their bargaining power? What is the prognosis about future entrants, substitutes, and competitors?<br>• What positive and negative factors can be identified? |
| Identify aspects of industry structure that might be influenced by competitors, by new entrants, and by the cooperative | • What aspects of the industry can be influenced by the cooperative?<br>• What aspects can be influenced by competitors and new entrants? |

■ Table 4: Porter's steps in doing an industry analysis
Source: Porter (2008, 38) as elaborated by the authors.

"Porter (2008) recommends undertaking a deep dive on the five competitive forces: a) threat of entry, b) power of suppliers, c) power of buyers, d) threat of substitute, and e) rivalry among competitors.". How can these forces be used to analyze the competitiveness of the cooperative's crop-based enterprises?

Threat of entry could dampen profitability when industry players "hold down their prices or boost investment to deter new competitors" (Porter 2008, 26). A new entrant "puts pressure on prices of products, costs, and rate of investment." In the case of coconut, cacao, rubber, and palm oil industries that involve smallholders like the cooperative's members, how can the threat of new entrants affect profitability in the industry? If its members would diversify to new supply chains (e.g., virgin coconut oil, *tablea* or chocolate processing, and marketing) or if they would enter industries where they do not yet have a presence (i.e., palm oil and rubber), what are the entry barriers and how can they survive if incumbents retaliate (i.e., price nosedive)?

The power of suppliers could serve as a source of competitive advantage and a force that cooperatives could aspire to, given their predominant role as suppliers. If suppliers, including labor, are powerful, they can squeeze profitability in the industry if the cost cannot be passed on to consumers. Porter (2008, 26 & 29) used Microsoft as an example. Microsoft helped erode "the profitability of personal computer makers" when it raised the cost of operating systems (p. 29). Farmer groups and cooperatives can become powerful if (a) they are "more concentrated" than other players in the industry they sell to; (b) they do not "depend heavily on the industry for [their] revenues;" (c) they move from one supplier group to another so other players have considerable "switching costs"; (d) they offer "differentiated" products; (e) they offer non-substitutable products; and (f) they can "threaten" forward integration (pp. 29–30).

The power of buyers could be a source of competitive advantage or disadvantage since powerful customers can bring down prices, demand better quality products which can increase costs, and play industry participants against one another. Customer groups inhibit bargaining leverage if (a) "there are a few buyers" or if there are large volume buyers; (b) "the industry's products are standardized or undifferentiated;" (c) they believe they can "find an equivalent product"; (d) they can easily transfer to other suppliers; and (e) they can "credibly threaten to integrate backward" and produce the product themselves (p. 30).

The threat of substitutes could increase or dampen an industry's competitiveness. A substitute is credible if it offers an attractive price trade-off to incumbent products and the buyers' switching cost to the substitute is low (Porter 2008, 31).

Rivalry among existing competitors could limit the profitability of an industry. It is intense if (a) "[c]ompetitors are numerous" or more or less "equal in size and power"; (b) "[i]ndustry growth is slow" so that players fight for market shares; and (c) "[r]ivals are highly committed to the business" and are committed to industry leadership (Porter 2008, 32). Rivalry could be a zero-sum or a positive sum game for suppliers in the industry.

## C. Institutional Analysis

In the early 2000s, there was a realization among management scholars that institutions mattered. Prior to this, institutions were seen simply as the context or the environment of firms and industries (Lawrence and Lorsch 1969). In developed economies, institutions were considered as simply a given since formal rules (e.g., laws and regulations) were working, and informal rules (e.g., norms, culture) were assumed to be in the background. Institutions were not seen as independent variables that could affect firms' strategic choices. It was only when strategy research started to probe into emerging economies that what was taken as a given became apparent and important (Peng et al. 2009, 66).

Institutions are "the humanly devised constraints that structure human interaction" (North 1991, 97) and the "regulative, normative and cognitive structures and activities that provide stability and meaning to social behavior" (Scott 1995, 33). Institutions, when they function well, can reduce uncertainties in market transactions because the rules of the game are known and respected. Institutions, as such, provide meanings and cues that condition actions or behaviors, as well as define "the boundaries of what is legitimate" (Peng et al. 2009). When these are not clear or when there is a preponderance of institutional voids, then "uncertainty clouds the judgment of actors" (Peng et al. 2009, 66).

Social enterprises and the actors within firms, value chains, and industries pursue their interests within an institutional setup. Often, formal and informal rules and constraints combine to govern their behavior. However, if formal institutions are not clear or when they fail, "informal constraints" will most probably play a bigger role in "reducing uncertainties, giving guidance, and providing legitimacy and rewards to actors" (Peng et al. 2009, 68). In essence, an institutional analysis would suggest that a firm can be competitive—even if it does not have resources that provide competitive advantages—if it knows the nonmarket (i.e., political and social) and informal institutions that it can utilize.

Defined this way, knowing the rules of the game and having a deep understanding of how to use them is a valuable capability of an enterprise. "If the resource is unique to the firm and not easily imitated, then it can be argued that it is a VRIO and thus a source of competitive advantage". Doing a separate institutional analysis, even if there are overlaps between the RBV and the institutional view, would highlight the importance of an institutional setup to a cooperative, like the one in this study.

To be able to do an institutional analysis, it will be important to first identify an issue that is either important to a social enterprise, its segment in the value chain, or to the industry. Using the cacao industry as an example, the concern could be on how to add value to the cacao production of the farmers. With this question, the analysis could focus on the institutions that govern cacao processing and marketing. Then, it can assess how the cooperative could work within the constraints and rules, and finally, tap into them to gain competitive advantage (i.e., adding revenue or mitigating threats). The table below is a hypothetical example.

| Question | What formal and informal rules are relevant to meet needs? | Why are they relevant? | Are the institutions formal or informal? | How can the cooperative tap these rules? |
|---|---|---|---|---|
| How can the cooperative process cacao? | Cacao roadmap and processing program of government | Source of facilities | Formal | Chairman sits in regional development council |
| | Guidance of a *tablea* producer on how to process cacao | Training of the cooperative staff | Formal | Sign an agreement with the *tablea* producer |
| | | | Informal | Ask the manager of *tablea* producer group who is a member of the cooperative |
| | Agreement with several traders | Source of cacao beans | Informal | Kinship ties with traders |

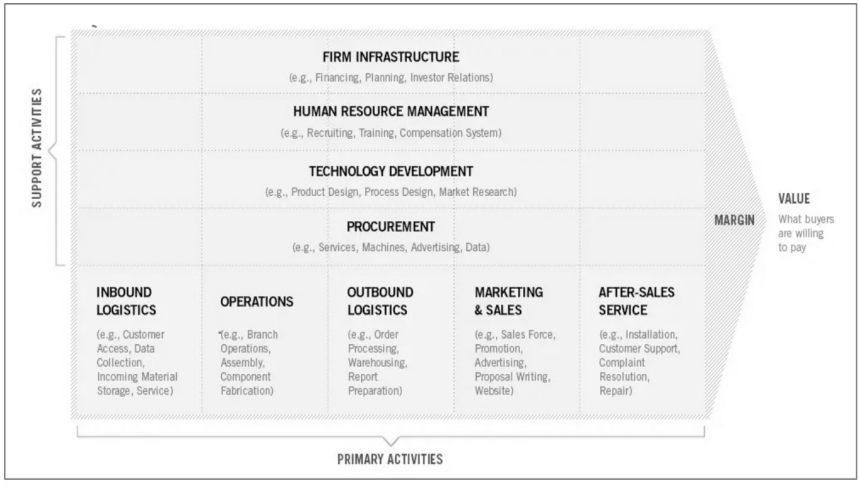
■ Table 5: Questions that can surface pertinent institutions

Even with a simple tool, conducting an institutional analysis would enable an explicit discussion of formal and informal rules and would allow for an itemization of potential advantages that may otherwise not be seen. Consistent with the aim of this paper, an institutional analysis should be pursued along with

an assessment of the resources and capabilities of the social enterprise, as well as the competitive forces of the pertinent industry (i.e., cacao). Among other reasons, doing this will guard against wasting social capital—the relationships of trust that a firm and its actors have—if the project is poorly conceived or ill-implemented. As seen in the RBV framework, social capital is an important resource for firms.

## D. Value Chain Analysis

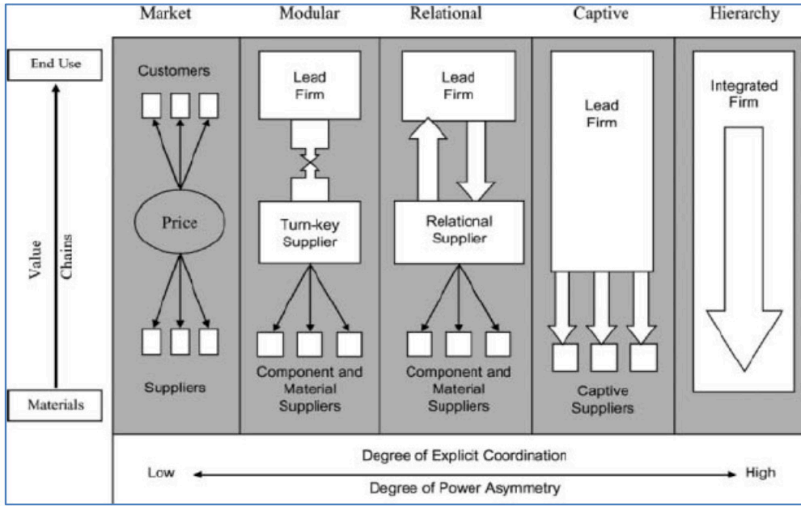
Complementing the three frameworks with a value chain analysis (VCA) would provide in-depth insights into a firm's internal and external sources of competitiveness. Porter (1985) introduced the "value chain," where he divided the activities of a firm into primary and supporting activities. Primary activities (logistics, production, marketing and sales, and service) are directly related to the creation of a good or service. Meanwhile, secondary activities (procurement, technology development, human resources, and firm infrastructure) are those that help in enhancing the primary activities. Value (and margins) can be added to any of these activities and can be a source of firm advantages. By identifying which actor takes on which role/s, a VCA can also show who captures value and how a chain can possibly become inclusive (Kaplinski and Morris 2001). Figure 3 shows Porter's value chain.




■ Figure 3: Porter's (1985) value chain analysis

Primary activities include inbound logistics, which could refer to the input supply, while operations could be appropriated to mean production of crops involving land preparation, planting, farm management, and harvesting. Outbound logistics could refer to the processing of products and their delivery to aggregators like the cooperative. Marketing and sales could refer to the sale of products to various buyers in the value chain. The main question needing answers in conducting Porter's value chain analysis is "who fulfills which roles?" Out of it, the query on who captures value and margins can be answered.

Over the years, the definition of *value chain* has also greatly evolved. In the current era of global interdependent production processes, the value chain is also construed as "the whole universe of suppliers and service providers, from the producers of raw materials, to consolidators, processors, logistics providers, packagers, product developers, administration, management, marketing organizations, wholesalers, and retailers" (Pelkmans-Balaoing 2019, 4). In this sense, adding a VCA to an industry analysis will show which actor/s in the chain are powerful in the industry or which ones play a lead firm role (c.f. Gereffi, Humphrey, and Sturgeon 2005). Figure 4 shows that in a market-oriented value chain, where customers and suppliers meet based on price, and in a hierarchical value chain, which is fully integrated, there is no need for lead firms. However, when value chains are modular, relational, or captive, then lead firms play a role vis-à-vis suppliers (and other players). What determines the type of value chain is the degree of power asymmetry and explicit coordination. If suppliers are capable and have more power, then value chains would lean towards the modular and relational types. EMIT C4C surmises that if smallholder farmers have partners (e.g., PEF), their capacity is enhanced resulting in increased bargaining power. In this case, the value chains become disposed towards the modular and relational types.




■ Figure 4: Gereffi, Humphrey, and Sturgeon's (2005, 89) five types of global value chain governance

Layering institutional analysis on top of a VCA could reveal which activities and processes in the chain have gaps. These gaps are called "institutional voids" or challenges that hinder market transactions from taking place (Khanna and Palepu 1997). After identifying the institutional voids, the next critical step is filling them. The enterprise or partners can choose to internalize the voids (cf. Capacio et al. 2020).

An RBV can also be layered on a VCA to reveal which internal resources and capabilities are critical in adding value to the products or services of the enterprise. These same resources and capabilities are most likely a source of cost or differentiation advantages. A VCA could also inform an enterprise, such as the Cooperative, if pursuing a new activity (e.g., through backward or forward integration) in the chain is worthwhile, given its strengths and weaknesses in its primary and secondary activities.

## Using the Frameworks and Tools on the Cooperative: Key Findings

The Cooperative was established in 1986 as a laboratory cooperative with 15 members. In the early 1990s, the Board of Directors had it registered with the

Cooperative Development Authority. In the early 2000s, the Cooperative had around 6,000 members, one main office, six branches, three satellite branches, and more than 100 officers and staff. During the data gathering for this action research, it had numerous loan products (e.g., commercial, regular, expanded, salary, productive, quick, consumption, cacao, microfinance, housing, real property, convenient, and insurance loans) and various other services (e.g., wholesaling and retailing, marketing of agricultural products, drying, milling, trucking and transloading, construction supplies and hardware, carabao and cattle dispersal, life and nonlife insurance, health insurance, mortuary assistance, motor registration, and vermicast production).[6]

## A. The Cooperative's Resources and Capabilities

The Cooperative became known as an outstanding cooperative in the region. Over the years, it has won multiple awards. When PEF was evaluating a possible loan program for the Cooperative, it found out that their annual revenue streams were derived mainly from the credit and marketing of crops such as coconut, copra, and corn. Its other sources of income include collection fees from the insurance and cacao project.

At the time of PEF's evaluation, the Cooperative's net profit displayed an average growth rate of 18 percent for three years of operation and was at its highest at 20 percent in 2015 and 2016. This is an indication that the Cooperative has been profitable in its operations after deducting necessary costs on financing, personnel, admin, marketing, and operating expenses. The Cooperative's equity component then was 34 percent, and it had an average debt-to-equity ratio of 2:1, indicating that it uses external borrowings to support its business activities. The Cooperative had a good liquidity position in previous years.

The financial strengths of the Cooperative complement the assessment of its resources and capabilities. The study found five VRIO resources and capabilities to be its sources of sustained competitive advantage:

6 The information is from a document produced by the Cooperative. This source is deliberately omitted to retain the anonymity of the organization.

1. Its main branch, which transacts various businesses, is utilized for various transactions, and serves a pivotal role in leading its branches.

2. Its financial management and relationship with the lending center of a universal bank are sources of strength and competitive advantage. It had the ability to borrow a production loan, working capital, and assets. Part of the reason is because it endeavored to pay arrears to the bank even if it suffered losses in nonperforming loans to members and nonfunctioning assets.

3. The overall system of interlinked credit, supply availability, purchase of products, and marketing to other buyers is also a valuable, rare, not easily imitated, and organized resource of the Cooperative. The agriculture store lends the needed supplies to cooperative members—something that is appreciated because of the distance of the farmers from input suppliers. The production loans for cacao and coconut production are VRIO because the interlinking also involves buying the harvested products at a higher price than the traders.

4. Its vehicles are a source of distinct and sustained competitive advantage since these move people and crops. Considering the distance between towns and the limited availability of modes of transportation, the Cooperative's jeeps were often full of passengers. The trucks used for hauling and delivery were also VRIO given their importance in the interlinked business models of the said cooperative.

5. Its boots-on-the-ground knowledge of its members and the communities that it works with are also sources of sustained competitive advantage. It can compete against traders and can receive grants from the government and other donors because it knows the needs of its primary stakeholders: farmers, farmworkers, and their other members.

However, the Cooperative appears to have resources and capabilities that are not valuable to begin with. These are their sources of competitive disadvantages:

1. Its nonfunctioning processing pieces of equipment (i.e., *tablea*, rubber) were resources that incur costs without yielding returns. These depreciate and

take up space. Their counterpart contribution to these donated facilities and various other costs were also not recouped.

2. Its system for assessing profitable industries to engage in does not provide vital information for their decision-making. Its entry into the palm oil business, even if the price of palm oil has been on the decline for years, shows a limited awareness of the overall (lack of) competitiveness of the palm oil industry. Hence, stakeholders (i.e., bank, buyer) swayed the cooperative to engage in what is considered to be a sunset industry. While the cooperative has boots-on-the-ground knowledge, its business intelligence and industry analysis were weak.

3. Its mechanism for determining if it has the absorptive capacity to manage a new enterprise or a certain size of the operation is also weak. This is evidenced by their receipt of facilities and projects that it was not able to manage.

4. Part of its inability to immediately implement agreed-upon projects and manage facilities can be traced to its weak succession management. When the former general manager and operations manager left the cooperative, their absence created voids that successors found difficult to fill. A mechanism for equipping successors or complementing their efforts with the board assuming some key responsibilities is also a resource that they did not have.

5. It appears that even if human resources are a source of disadvantage, the cooperative (and the research team surmises most cooperatives) found it difficult to hire management positions from outside of the cooperative. Despite succession challenges, the preference is to promote personnel from within. This shows the stickiness of human resources and the importance of equipping not just officers of cooperatives but also the staff since they are likely the candidates that will fill management positions.

The cooperative's strengths and weaknesses are not unique to medium and large-sized cooperatives. These cooperatives could borrow and pay for their arrears by managing or absorbing risks, and they have a track record for implementing successful projects. They could also develop business models that prove to earn them revenues while pursuing their social mission. However, they are often

weak in their business intelligence or sounding of what constitutes a competitive industry or a profitable business model. This is a weakness typical not only of cooperatives but also of small and medium enterprises that do not have the resources to gather information. This is a resource that partners of cooperatives like PEF could provide as a service.

The next section deepens the discussion on competitive advantage with a presentation of coconut, cacao, rubber, and palm oil industry assessment. Each analysis begins with a context of the cooperative's specific enterprise or business model followed by a brief industry analysis.

## B. Major Findings on the Industries that the Cooperative is Involved in

EMIT C4C and PEF visited the barangays where the Cooperative operates to get insights into their coconut, cacao, palm oil, cacao, and rubber enterprises. This section of the paper is structured so that it first provides a snapshot of the data that were culled during the field visits. Afterward, these pieces of information were analyzed using an industry analysis of the coconut, cacao, palm oil, and rubber industries.

### *B.1. Copra and whole nut enterprises*

Farmer-members of the cooperative sell whole coconuts and copra to one of their branches (Branch S) and other buyers. In 2019, when data gathering was taking place, Branch S offered a higher buying price for whole nuts and sold these to a buyer F. During the discussion with Branch S,[7] the interviewees shared that they purchased good whole nuts at ₱4.20 per kilogram (kg) and bad whole nuts at ₱3.50 per kg. Of this price, ₱0.10 was allocated to the cluster, while another ₱0.10 was for the cluster officers. This was a higher buying price because, on that same day, the price of traders was at ₱4.00 per kg.

In the same period, Branch S sold good whole nuts to buyer F at ₱6.00 each. Of the gross income of ₱1.80 per kg, Branch S on average spends on labor, trucking, and the driver. When costs are deducted, the cooperative had a net income of

7 Held on 24 October 2019.

approximately ₱0.63 per kg. This could increase anywhere from ₱1.20 to ₱1.60 per kg depending on the price offered by buyer F and the traders, as well as the cost of fuel. They estimated that they need to make at least three deliveries to the buyer per week to break even (factoring in the cost of truck depreciation and opportunity losses in using their vehicle for delivery). Oftentimes, however, they could only do two deliveries per week since the waiting time for trucks at the company is three days. One option is to hire the truck of buyer F which can haul almost twice more than what the small truck of Branch S can carry. This will also ensure that they spend less time waiting since company vehicles are prioritized. Based on their computation, however, this option is more expensive and tedious.

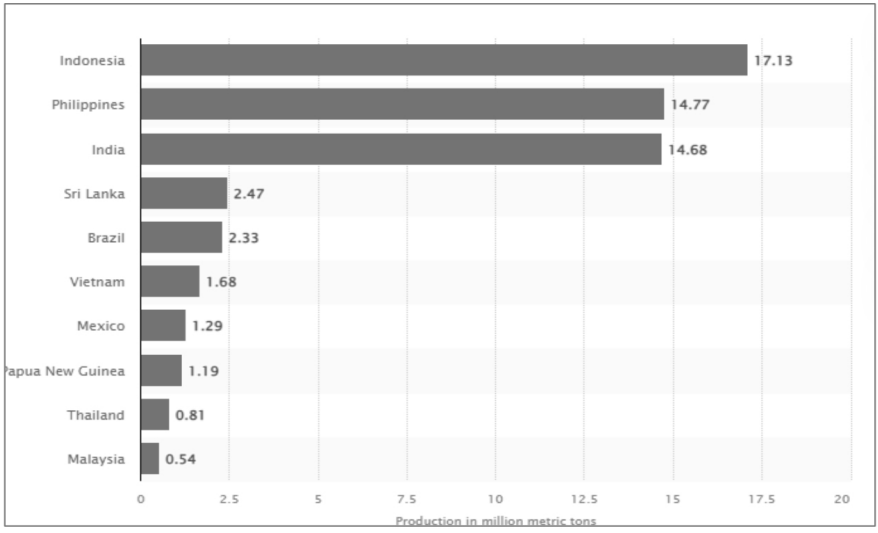
These challenges are just some of the concerns of the coconut industry. Based on information gathered from industry players in 2019, the average yield of coconut in the Philippines is 44 nuts per tree every year whereas the world's top producer averages 50–150 nuts per tree ever year (PCA 2022, 214).[8] Around 50 percent of total coconut is nutrient deficient, and 14 percent of trees are old or "senile." About 25 percent of Filipinos are dependent on the industry, and a majority of the smallholders are producing copra, which is low value. Copra, which produces coconut oil, copra meal, active carbon, charcoal, and oleo chemicals, accounts for 80 percent of total coconut products (PCA 2022, 23).

In terms of volume of production and area planted/harvested, coconut is always in the top four in the Philippines along with rice, corn, and sugarcane. In 2020, the volume of coconut production nationwide is 14,490.9 million metric tons (MMT), covering approximately 3,651.3 million hectares (PSA 2021, 8). The top producing regions are Davao Region (13.5 percent), Northern Mindanao (12.8 percent), Zamboanga Peninsula (12 percent), CALABARZON (10.3 percent), BARMM (9.3 percent), SOCCSKSARGEN (8 percent), Bicol Region (7.9 percent),

8 The Philippines ranked 46 in 2018 in terms of number of nuts per tree per year. Data from the Integrated Corporate Reporting System Web Portal Home - Integrated Corporate Reporting System (gcg.gov.ph), containing the report of the Philippine Coconut Authority (GOCC Profile - Integrated Corporate Reporting System), states that the average nut per year in 2018 was 64 nuts / tree (downloaded on 6 March 2024). According to Magat (1997), the average yield is 107 nuts/tree annually for farms that are managed by the Philippine Coconut Authority and that there was a huge gap between unmanaged farms, farmer-managed farms, and farms managed by research stations.

and Eastern Visayas (7.6 percent) (PSA 2021, 11). On a per-province level, around 68 of 81 provinces are coconut areas (Ranada 2014).

These data indicate that the coconut industry, despite being produced by numerous smallholders in the Philippines, needs a boost if it wishes to remain competitive. While there is demand for coconut products worldwide (the global market is approximately US$7.5 billion) and the Philippines is the second largest producer of coconuts, our production has a compound annual growth rate (CAGR) of less than one percent.




■ Figure 5: Top ten producers of coconut worldwide (Statista 2019).

Nevertheless, the domestic resource cost ratio (DRCR) of coconut, which measures the domestic cost of labor and capital (in US dollars) needed to produce one dollar of output of coconut, is 0.36 as of 2012 (Briones 2016, 168). A domestic resource cost lesser than 1 implies comparative advantage. This must be because there are various products and value chains of coconut, which are profitable relative to copra.

The coconut industry roadmap grouped the products into four value chains, namely coconut oil, desiccated coconut, health foods, and arts and crafts. The roadmap shows the materials and coconut parts needed by each value chain.

| Type/ material | Coconut Parts | Value Chains | | | |
|---|---|---|---|---|---|
| | | Coconut Parts | Desiccated Coconut | Healthy Foods | Arts and Crafts |
| Matured coconut | Husks | Coir fibers & peat, organic fertilizer, twines, geo-nets, chips | Coir fibers & peat, organic fertilizer, twines, geo-nets | | Sculptured husks |
| | Shell | Active carbon (AC), briquettes | Biomass fuel | | Beads, buttons, inlaid furniture, fashion accessories |
| | Kernel | Coconut Oil (crude, cochin, edible), bio-diesel, engine oil | Desiccated Coconut | Virgin coconut oil, flour, jam, cheese, yogurt, nata de coco, skim milk, lubricant, confectioneries | |
| | Water | | Beverage | Nata de coco, vinegar, wine | |
| Young nuts | Fruit | | | Sauce, juice | |
| Spadix | Sap | | | Sugar, tea | |
| Leaves | Midribs | | | | Hats, baskets |
| Trunk | Lumber | | | | Basket, toys, furniture |

■ Table 6: Coconut value chains
Source: Davao Region Industry Clusters Roadmaps 2014-2030 (RDC XI 2014, 105).

Of the value chains, coconut oil contributes the most to the export market. The barrier to entry in the export market is low but being involved in it contributes little to the income increase and diversification of smallholders. However, there appears to be a huge potential for coco fiber, coco peat, twines, geo-nets, and active carbon but the market for these products remains limited. There are also market opportunities for virgin coconut oil (VCO), coco sugar, and *lambanog* (wine).

The Philippines is treated as "the world's main producer of VCO" (Cotoner 2021). In the country, "VCO production increased from 6,362 MT in 2012 to 64,675.78 MT in 2015" (PRDP 2017, 9). VCO is also becoming more widely known as a "functional food oil," with consumers abroad becoming increasingly familiar with the product (p. 72). The demand for VCO in the United States and the European Union "will continue to experience a dramatic growth" (p. 72). There are also high hopes for coco sugar, given the comparatively huge demand in a market niche:

the needs of diabetics. Unmet demand worldwide is 622 million kg, of which 14 million kg are expected to be purchased to address concerns about diabetes. The growth in the coco sugar market is tempered by price competitiveness compared to other alternative and healthy sugars like muscovado. Briones (2019), however, expressed caution that behind the cloak of opportunity is a threat. Since coconut sugar production is a lucrative venture, more players are expected to join the bandwagon. This might lead to a saturation point or a venture where supplies will exceed the potential and actual demand. In this future condition, only the most efficient firms, cooperatives, and smallholders—or those with higher quality and differentiated products—would mostly survive.

It appears that except for a number of coconut products and value chains, the coconut industry in the Philippines is in steady decline. The trees are senile, and coconut substitutes abound. The cooperative members, like most smallholders, are still in the copra value chain, which is low value and has limited potentials for value-adding. The lack of competitiveness in the industry contributes to the low income of the Cooperative's members who were interviewed. Their trees were tall, old, and located in upland areas. These already make choices like coco sap and *lambanog* production difficult (these are best produced by dwarf trees). Aside from copra, the only sensible choice appears to be VCO, geonet, and coco coir, but these have no viable market in the cooperative's area. Encouraging farmers to intercrop with cacao, vegetables, and banana is important for income diversification and food security.

The next part is a discussion of the Cooperative's cacao enterprise and an analysis of the cacao industry in the country.

### *B.2. Cacao*

The Cooperative also buys cacao beans from smallholders and sells these to a company that sells to a *tablea* maker. Like their strategy on coconut, the Cooperative strives to cut the trader-lenders by providing production loans to farmers in exchange for buying a majority of their cacao beans during harvest season.

The Cooperative has a cacao processing facility that has a roasting and drying machine (located in Branch M). However, the electrical supply could not power the machine so it was unutilized. The cooperative intends to use a generator for this (costs around ₱400,000). If they can process tablea, they estimate that they

can buy cacao from farmers at ₱37 per kg, relative to their ₱32 to ₱33 buying price at that time.

Cacao could be a source of competitive advantage for the Cooperative and other smallholder cooperatives. Briones (2019) estimates an annual deficit for cacao worldwide of around 100,000 MT due to declining production in the West African region and in Indonesia in the last 10 years. Their constraints include adverse weather, pests, diseases, competition with other plantation crops, aging of trees, low productivity, and social unrest (Briones 2019).

Even domestically, the Philippines is a net importer of cocoa products. The annual domestic consumption is equivalent to around 50,000 MT of dried cocoa beans, but the local supply is approximately somewhere between 10,000 to 15,000 MT (DA n.d., 2). If local demand is to be met, there should be around 25 million to 35 million trees planted on 60 thousand to 75 thousand hectares of land. However, the area planted/harvested for cacao in 2021 was only 31,300 hectares (PSA 2021), and these areas are probably intercropped with coconut and banana. Domestically, there are also serious constraints in producing cacao. These include a lack of quality planting materials, low level of consciousness on product quality and standards, inadequate fermentation facilities and skills on fermentation, limited skills in good agricultural practices (GAP), inadequate post-harvest facilities and infrastructure, and lack of certification for good manufacturing practices (GMP) or hazard analysis and critical control points (HACCP) (Briones 2019).

The Cooperative could pursue cacao processing, as shown by our example. Their neighboring processor, Company C, has been buying cacao beans from smallholders. Company C then dries and processes the beans into tablea, and it delivers these to buyers like Auro Chocolate in Davao City. For Company C, this could be a good enterprise for smallholders who have intercropped their coconut and banana with cacao. The costs, almost like that of rubber production, are mostly incurred in the first year. Reasonably good returns can be reaped from the fifth year onwards (productive lifespan is until 40 years). The table below is for one hectare (around 600 cacao seedlings at ₱25 per seedling), with increasing yield per year, and selling price at ₱25 per kg of wet beans.

| Year | Costs (in ₱) | Net income (in ₱) |
|---|---|---|
| 1 | 33,380 | 0 |
| 2 | 14,250 | 15,750 |
| 3 | 25,500 | 34,500 |
| 4 | 29,900 | 37,600 |
| 5 | 30,900 | 44,100 |

■ Table 7: Cost and returns from cacao
Source: DA (n.d., 6)

However, for the Cooperative to fully compete in the cacao industry, it might need to partner with downstream stakeholders to ensure the availability of agriculture technology and extension as well as product development and marketing. It might be profitable for them to also diversify its cacao enterprise into a number of value chains: beans for specific buyers and *tablea* and other processed products for other buyers. The Cooperative can finance the electric transformer (either through self-financing or loan) or work with the electric cooperative to access three-phased electricity at the earliest possible time.

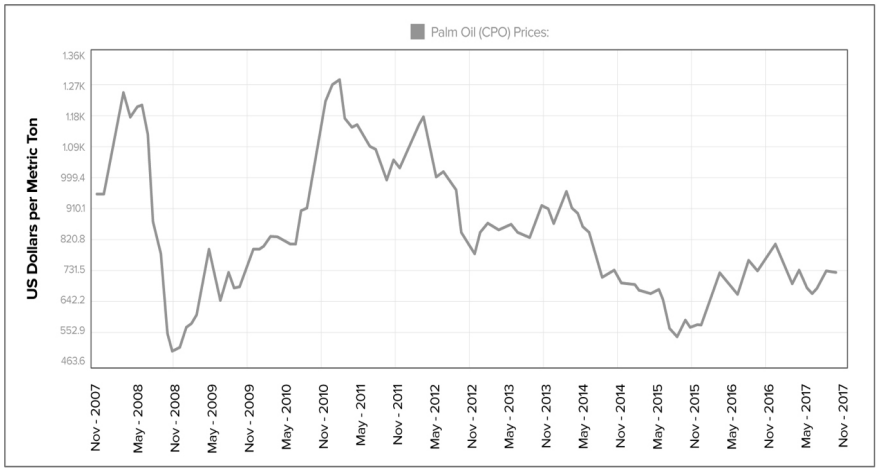
## *B.3. Palm Oil Woes*

As mentioned, a universal bank convinced the Cooperative to enter the palm oil industry since one of the local players in the industry is a sure buyer.[9] The farmers planted palm oil on approximately 500 hectares of land. The bank provided the cooperative with a production loan with a three-year grace period. In the beginning, the farmers and the Cooperative earnings from the rise in palm oil prices gave the illusion of high profits because of the grace period. After those initial years, prices have plunged. By 2019, the Cooperative had a total debt exposure of ₱30 million. The bank insisted on full repayment and suggested securing additional loans for farm rehabilitation.

Certainly, the Philippine palm oil industry is highly uncompetitive when compared to neighbors like Indonesia and Malaysia, where palm oil is produced on a large scale. Yet in general, the worldwide price of palm oil declined over the

9 Extracted from Annette Pelkmans-Balaoing's briefing paper (unpublished) on palm oil that EMIT C4C shared with the Cooperative.

years. Figure 5 shows the trend in world price of palm oil over 10 years or from 2007 to 2017 (Gbadebo-Smith 2024).




■ Figure 6: Palm oil prices, 2007-2017 (Gbadebo-Smith 2004).

What are driving the downward trends in palm oil prices? Drawing from the case of Malaysia, Shamsudin (2019) presents these factors:

1. Increase global supply: In Malaysia, 5.849 million hectares of land are devoted to palm oil production, which was around 19.516 million MT in 2018.

2. Negative consumer sentiment towards palm oil due to "alleged links to deforestation, climate change, ill health effects, and market restrictions in terms of tariff and non-tariff trade barriers." This contributed to a decrease in "demand for palm oil-based products and export market access."

3. Price movements of soya bean oil since palm oil also competes for a share of the global vegetable oil market and price movements of crude oil since palm oil "is also used as feedstock for biodiesel."

The global market for palm oil represents an enormously aggressive business environment with a number of dominant market players. Zion Market Research (2019) lists the following significant palm oil companies as the dominating market players: United Palm Oil Industry Public Company Limited, Cargill Inc., Wilmar International Limited, Golden Agri Resources Limited, Sime Darby, PT Astra

Agro Lestari Tbk, Godrej Agrovet Limited, London Sumatra, IOI Corp., Musim Mas Group, Kulim Bhd, ADM, and Alami Group. Despite this, palm oil remains to be the lowest-priced oil (Zion Market Research 2019). In addition, biodiesel mandates have been in force in many countries. Policies on minimum quantity (20% in Indonesia and India) of palm oil-based diesel that should be blended with traditional diesel have set floors on diesel from palm oil for years to come and thus increased its relationship with energy or crude oil prices (Gbadebo-Smith 2024).

In addition, "sustainability factors" also play a role in shaping the direction of the palm oil industry:

> The final major driver of forward-looking palm oil growth is "sustainability factors." Specifically, there has been rising hostility and policy against GMO-based oils in Europe, and an outright ban on trans-fat foods in the US. Both of these factors have resulted in a migration away from soybean and sunflower oil toward palm oil as a raw material base in food (Gbadebo-Smith 2024).

In its discussions with and briefing paper for the cooperative's Board of Directors, EMIT C4C strongly advised against any further loans for the rehabilitation of farms. The team discussed that it might be wiser to consider diversifying away from palm oil.

### *B.4. The Cooperative's Receipt of A Rubber Processing Facility without Three-Phased Electricity*

In 2015, the Department of Agriculture (DA) gave the Cooperative a crumb rubber facility worth ₱10 million, including equipment that would produce natural crumb rubber for tires and other manufacturers. However, this facility needed other equipment and parts, so they sought the help of the provincial government, which provided a drainage for the waste that would be produced. The facility likewise needed a higher-voltage electricity, which their power supply could not meet. The Cooperative bought a transformer that was destroyed during equipment testing. The Cooperative also rented a heavy-duty power generator for a day but they were not successful in processing rubber that day. The nonfunctioning facility affected its financial statements because of

asset depreciation. The board members learned from this experience—that they should carefully study the grants before accepting them, and that they should also be ready with funds for asset operation, maintenance, and replacement.

The Cooperative may be wise in its decision not to pursue the purchase of a generator set or to solicit one from the government or private sector. While the rubber industry is promising, DTI notes:

> There is little incentive to process rubber in the Philippines. This is quite evident in the country's shift from export of crumb rubber to cup lumps to Malaysia. Filipino processors report that they receive US$50–US$100 less per ton for processed rubber due to quality concerns. Moreover, the high energy cost in the country provides additional reason to export raw natural rubber to Malaysia and process it there (DTI 2018, 4).

There is a trend toward product downgrading given concerns about quality and energy (cost and availability).

For the time being, the Cooperative could exert more effort in learning the business model of rubber processing (considering electricity availability and cost) and the technical aspects of addressing product quality concerns from the deliveries of farmers. They can also reach out to buyers of crumb rubber to explore options for the repair and use of the facility in exchange for technical assistance and delivery of products.

Despite the challenge with the processing facility, the prospects for smallholder rubber production are optimistic. The Philippines is in the rubber belt where the temperature is ideal for production and where most players are located (DTI 2018, 3). Yokohama, a Japanese company that manufactures tires, has set up Yokohama Tire Sales Philippines and has been sourcing crumb rubber domestically (Yokohama Tire Sales Philippines 2019). The Philippines is the seventh in the world in rubber production. In 2020, approximately 231 million hectares were devoted to rubber, mostly in Mindanao. The output for the same year is around 422.4 million MT (PSA 2020).

Smallholders in the Philippines have been participating in the rubber value chain. It was estimated that the average cost of production per hectare in 2011 was ₱12,000.00 excluding labor services. Their average returns were as follows:

| Year | Grams/tree | Gross income/ month/tree (PhP) |
|---|---|---|
| 1st to 5th year | 0 | 0 |
| 6th year | 20 | 1,700 |
| 9th year | 100 | 8,500 |
| 13th year | 200 | 17,000 |
| 16th year | 300 | 25,500 |
| 20th year | 375 | 31,875 |

■ Table 8: Expected returns from planting rubber
Source: Ordoñez (2011). He pegged this at ₱85 per gram and at a minimum size of 400 trees.

Smallholders could start benefiting from rubber production around the sixth year. Assuming a farmer planted 400 trees, around ₱680,000 per year could be earned assuming all the trees are in good condition.

### *B.5. Competitive and Noncompetitive Industries*

It has become evident that the Cooperative is involved in both competitive (coconut, cacao, and rubber) and noncompetitive (palm oil) crops. In the case of coconut, the cooperative has limited choices in terms of profitable value chains, except perhaps for VCO, since their products were mostly copra and whole nuts. There are no known buyers and technology providers of geonets, coco coir, and coconut arts and crafts materials in the area. Their tall coconut trees are also not ideal for products derived from coco sap, hence many of them remain with copra production.

While the Cooperative has a presence in cacao and rubber, they could still improve their participation in these industries by partnering with upstream and downstream stakeholders. This way, they could learn how to address institutional voids like lack of technology, inputs, and extension services. One actor cannot address the enormity of institutional voids alone, let alone a farmers' cooperative with limited resources. With partners, however, it is possible to meet immediate

and medium-term needs in order for the value chain and key industry actors to become competitive.

Since the Cooperative has limited or weak resources and capabilities to assess an industry, they borrowed loans and started an enterprise on palm oil. A prior, in-depth analysis of this industry would have made them apprehensive in accepting the loan offer.

This part of the discussion paper illustrates how a simple industry analysis can possibly inform decisions and raise red flags. At the very least, an assessment of crops or commodities should include publicly-known data and discussions on:

1. production costs and returns of farmer suppliers
2. proposed and/or existing business models of intermediaries like cooperatives and social enterprises
3. product substitutes
4. financial ratios of the business model/s
5. domestic and international needs for and competitiveness of the products.[10]

An assessment of competitiveness should include who the competitors are and what they are excellent at. This should be analyzed in relation to the strengths and weaknesses of the social enterprise. Does it have the resources and capabilities to seize the opportunities and manage the threats? Moreover, a typical industry analysis of a crop or commodity produced in the Philippines often falls short in examining its competitiveness in relation to the same industry in another country. Excluding imports, exports and world dynamics paints an incomplete picture.

10 Number 5 includes answering if the Philippines is a net exporter or net importer; if it is possible to enter particular value chains or markets; what are the barriers to entry; what are the barriers to exiting the current value chains and industries; and who can be partnered to address barriers and rivalries.

In the next section, we will analyze if the formal and informal institutions outside of the cooperative contribute to competitiveness or to the proliferation of institutional voids.

## C. Institutional Analysis

The Cooperative is located in one of the poorest towns in its province, with 43 percent of its population living below the poverty line. It scored low on three of four pillars of the cities and municipalities competitiveness index (see Table 9). It ranks relatively well on resilience because of its efforts at creating various plans.

| Indicators | Specifics | Score |
|---|---|---|
| Economic dynamism | Economy size, economy growth, increase in employment, financial deepening, etc. | Almost 5 /25.00 |
| Government efficiency | Capacity to generate local resources, capacity of health care, peace and order, etc. | Almost 10 /25.00 |
| Infrastructure | Road network, distance to ports, etc. | Almost 3 /25.00 |
| Resiliency | Land use plan, annual disaster drill, early warning system, etc. | Almost 17 /25.00 |

■ Table 9: Cities and Municipalities Competitiveness Index indicators, scores for the Cooperative's town.
Source: *Cities and Municipalities Competitive Index*, DTI (2023) . The exact scores were deliberately rounded off for anonymity of city/municipality.

The Cooperative's town is home to around 27,000 individuals from around 6,500 households scattered across 13 barangays, seven of which are heavily forested.

Because of poverty and the overall lack of competitiveness of this town and its neighboring province, the government and other organizations have targeted the Cooperative as a means for intervention. This possibly explains why the Cooperative has been the recipient of numerous processing facilities. When the research team was in these towns, it was apparent that only a few organizations were operating in their areas of intervention, which is why the Cooperative's presence is appreciated. It operates in an area where institutional voids are prevalent. Their successes in a number of projects also provided them with a track record that was favorably viewed by donors and partners. Their wide connection with agencies and their deep knowledge of local rules of the game

(i.e., kinship ties, what are accepted and not acceptable behaviors) worked to their advantage. Knowing the institutional environment allowed them to become a partner of reputable institutions and recipient of processing facilities.

However, the Cooperative's capabilities and resources are limited in maximizing the opportunities that were provided by their networks, as evidenced by their inability to use the cacao and rubber processing facilities. Their lack of business intelligence on the palm oil industry also led to problems accruing from maximizing their networks, which enticed them to borrow funds for palm oil production. They appeared to not have the capacity to absorb and manage all their projects.[11]

## D. Value chain analysis

In general, the Cooperative plays similar roles in the value chains of coconut, cacao, rubber, and palm oil. Its involvement in primary activities is in the interlinked financing and consolidation of products, delivery of products to its branches, marketing, and delivery to buyers.

The government (through DA and the Philippine Coconut Authority [PCA]) often provides input supply for coconut, cacao, rubber, and palm oil. Meanwhile, the smallholders undertake production. If agro-enterprise clustering pushed through, the Cooperative could have played a bigger role in production including plant scheduling and management of deliveries to its buying stations. The Cooperative participates in production by providing access to production loans and buying the harvested products. Buyers then undertake the milling of copra and further processing of cacao and other products. This step is the most capital-intensive in these value chains. The Cooperative could have played other roles if it had the resources and capabilities to use its processing facilities to process cacao and rubber. It could also set up nurseries in partnership with the farmers so they can nurture better planting varieties and eventually create business models out of it (e.g., sell at a premium price to nonmembers).

---

11 EMIT C4C's discussion with the Operations Team of PEF on 10 June 2022 showed that many cooperatives fear that not accepting government projects and equipment would penalize them. They also worry that they would not be chosen again as recipients of similar interventions. This concern is one of the reasons why grassroots organizations accept projects, even if they know that they do not have the capacity to manage them.

The Cooperative undertakes support activities with the assistance of partners like PEF and their buyers. To an extent, it commits to constituting the firm's infrastructure (financing, planning, investor relations, and other functions of a lead firm) in so far as it provides financing, looks for partners, and plans for new ventures. However, as earlier noted, the Cooperative is limited in its access to information on the competitiveness of industries and value chains. They are also limited in their capacity to use and make business out of processing facilities. If the Cooperative can undertake firm infrastructure, then it could, arguably, add to the welfare of smallholders since this role can dictate the governance and structure of value chains.

Value chain governance of agricultural commodities lean towards market governance (and not modular, relational, captive, or hierarchical). This is because products are uniform in quality and thus not need suppliers' skills to differentiate products for different buyers. Global price thus determines the buying price. With commodities, there is little incentive to modularize the value chain or invest in relations with smallholders.

There are spaces for local value chains to become more competitive and inclusive to smallholders depending on a number of factors. One of these factors includes the capacity of a social enterprise like the Cooperative to become the lead firm in local value chains. The Cooperative can perform a number of roles and thus improve the bargaining power of smallholders relative to other players. For instance, if the Cooperative can purchase more products because it can interlink input supply (set up a nursery and input store), production financing, consolidation, and marketing to various other buyers, then it could potentially leverage higher margins. If the Cooperative can process products with the use of its facilities, then it can potentially integrate further in the value chain.

In conclusion, if a social enterprise like the Cooperative is capable of performing roles and create mechanisms (e.g., interlinkages) then it can capture value and margins, and can be pivotal in making value chains inclusive.

The next section synthesizes these findings and the lessons learned from using the frameworks and tools.

## Strategy Tripod: Analyzing the Cooperative using Frameworks that Inquire, Describe, and Explain

The main question deduced from all the frameworks is this: Is the enterprise, industry, value chain, or institutional environment competitive? The frameworks could help create or adjust strategies to maximize opportunities and manage risks and threats. Using the frameworks on the Cooperative provided descriptive and explanatory insights.

The industry analyses examined the level of competition and identified which industries and value chains best suit cooperatives similar to the one in our example. Based on data from the Cooperative, it appears that the copra and whole nut value chain are not competitive. Smallholders might be better off diversifying to niche markets like VCO albeit these markets are not yet mature in the Cooperative's area. Layering the industry analysis on top of a value chain framework shows that even if the Cooperative has support activities for the primary activities of buying and selling copra and whole nuts—like interlinked financing—the support efforts still do not compensate for the low value and limited value adding copra and whole nut chains.

Perhaps the Cooperative did not realize that the palm oil industry is not competitive because more often, industry analyses fall short of examining aspects like global value chains, competitiveness of other countries, capacity to export products, and the need to import certain raw materials in order to export products. In the course of reviewing various industry analyses for this paper, it became evident that many analyses are focused on the local or national situation, and they fail to reflect the industry structure and institutions of other countries. Many studies also fail to investigate the products needed by other countries vis-à-vis our capacity to export them.[12] Understandably, micro, small, and medium firms like the Cooperative do not have the resources to gain industry soundings. Their human resources and networks are insufficient in providing information on what industries to enter and invest in. Since the cooperative is the biggest and

12 EMIT 1 analyzed heterogeneous data on imports and exports of firms in the Philippines. One of the findings is that the data often released in industry analyses are averages. However, given the complexity and heterogeneity of firms and products, there are no averages.

most reputable group in the area, they get to be offered projects and business opportunities that they cannot vet given their limited capabilities and resources. All of these contributed to their huge palm oil loan.

Even if industries are competitive, and suppliers are a competitive force within an industry, it is possible for a micro, small, and medium-sized like the Cooperative to not have the resources, capabilities, and institutional set up to maximize opportunities and mitigate threats.[13] Based on Porter's value chain framework, they may not have the support activities that can help the primary activities (i.e., the leadership and partnerships needed to help bring products and services into the next stage of the value chain).This underscores the need for partners that can make the value chains competitive yet inclusive.[14]

One challenge of human resources in cooperatives can be the tendency to rely solely on internal candidates for hiring and promotion. They compensate for limitations in skills, competence, and experiences with succession plans and training. However, when succession plans are not implemented or are not enough, programs, projects, and services suffer. This underscores the need for partners to supplement the needed resources. For instance, partners can provide industry analyses to complement cooperatives' boots-on-the-ground knowledge.

In general, smallholders can only be enjoined to diversify other crops and value chains or to have multiple income streams if they see proof of success. Their limited resources do not invite risky behavior. However, when they see the profitability of new enterprises, they tend to imitate. This underscores the importance of demonstration farms, which were part of the plans of the Cooperative and PEF (Soliman 2020). One way to incentivize diversification (and other actions) is through providing loans to early adopters of technologies.

---

13 This is not unique to micro and small-sized firms. Even medium and big firms sometimes do not have the relevant resources and capabilities to gauge industries, value chains, and institutional dynamics that are unfamiliar to them. However, these more established firms have more access to networks that could give them information. Chances are, they also have strict risk assessment mechanisms that micro and small firms, like cooperatives, do not have.

14 The action research projects of EMIT C4C, which are published by UP CIDS, show examples of inclusive and competitive value chains. See: https://cids.up.edu.ph/program-on-escaping-the-middle-income-trap-chains-for-change/

However, the tenor and interest rate of the loan should be well-suited to the objective of motivating innovations.

When the frameworks are used on an organization, the competitiveness (or the lack thereof) of the firm, the industry, value chains, and the institutional set up can be assessed holistically.

## Recommendations

This discussion highlights the importance of helping grassroots cooperatives by providing them with timely industry, value chain, and institutional analyses. These analyses could improve cooperatives' decision-making processes when it comes to starting projects and engaging with other actors (e.g., financers and buyers of palm oil). Government agencies like the Department of Agriculture and the Cooperative Development Authority, local government units, and partners like the Peace and Equity Foundation could fulfill this important role.

Partnership is also critical in developing new products and engaging in new enterprises. The Cooperative can partner with product experts and buyers of competitive or profitable value chains. It is important for cooperatives to know their weaknesses and to plan for means to strengthen their internal resources and capabilities. They might need to partner with relevant stakeholders to complement or fill resource and capability gaps.

The Cooperative receives projects from the government and other organizations because it is a reputable and reliable cooperative in a place needing development and peace projects. This is possible despite their human and other resource constraints. Hence, the need for government and other organizations to help small cooperatives, those with limited or no track record, so they would be able to manage projects. Instead of focusing on "big brothers," which also challenges their absorptive capacity, it is important for the government to directly help smaller organizations by increasing their capacity to gauge, accept, and implement projects. This could mean creating programs aimed precisely at empowering cooperatives to manage projects in the immediate future.

Using one, a few, or all of the frameworks could potentially show red flags prior to or during the partnership. These can then be used to highlight and address problems before they escalate.

## Acknowledgements

Funding for the action research on the Cooperative was provided by UP CIDS and the Peace and Equity Foundation. This paper would not have been successful without the guidance and insights of Ma. Pia Villapando of PEF and EMIT C4C Convenor Annette Pelkmans-Balaoing, Ph.D. Danica Marra Soliman of PEF gave her comments in the writing of this paper. Likewise, the policy brief written by Dr. Pelkmans-Balaoing on palm oil and provided to the Cooperative served as a main reference for the writing of this paper.

---

## References

Abrina, Tara Alessandra. 2020. "Going Against the Tide: The Middelen Magna Trade Inc.—Mahusay Case Study." *UP Center for Integrative and Development Studies Discussion Paper* 2020–10. https://cids.up.edu.ph/download/up-cids-discussion-paper-series-2020-10-going-against-the-tide-the-middelen-magna-trade-incc-mahusay-case-study/

Abrina, Tara Alessandra, Jane Lynn Capacio, Julian Thomas Alvarez, and Andrew Orocay. 2022. "Going Against the Tide: The Kapunungan sa Gagmayng Mangingisda sa Concepcion." *UP Center for Integrative and Development Studies Public Policy Monograph Series* 2022–07. https://cids.up.edu.ph/download/going-against-tide-kapunungan-gagmayng-mangingisda-concepcion-kgmc/

Alghamdi, Ahmed Hassan, and Li Li. 2013. "Adapting Design-Based Research as a Research Methodology in Educational Settings." *International Journal of Education and Research* 1(10): 1–12. https://ijern.com/journal/October-2013/27.pdf

Barney, Jay B., and William S. Hesterly. 2019. *Strategic Management and Competitive Advantage: Concepts and Cases*. 6th ed. New York: Pearson.

Briones, Roehlano. 2016. "Domestic Resource Cost in Philippine Agriculture: Measuring Global Competitiveness of Key Commodities." *Philippine Journal of Development* 41 and 42 (1 and 2): 157-184.

Briones, Roehlano. 2019. "Value Chain Development: Coconut, Sugarcane, Coffee, Cacao." Presentation during the "Strategy Review and Directions Setting for 2021 and Beyond" of the Peace and Equity Foundation, 15 November 2019.

Capacio, Jane Lynn. 2021. "Going Against the Grain: A Case Study of Jollibee Group Foundation's Farmer Entrepreneurship Program." *UP Center for Integrative and Development Studies Public Policy Monograph Series* 2021–02. https://cids.up.edu.ph/up-monograph/going-against-the-grain-a-case-study-of-jollibee-group-foundations-farmer-entrepreneurship-program/

Capacio, Jane Lynn, Emmanuel De Dios, Reinier De Guzman, and Rob Van Tulder. 2020. "Creating Inclusive Institutions." *UP Center for Integrative and Development Studies Discussion Series* 2020–03. https://cids.up.edu.ph/wp-content/uploads/2023/01/Creating-inclusive-institutions-An-analysis-of-the-experience-of-three-agricultural-value-chain-models.pdf

Cotoner, Elaine. 2021. "Market Study Reveals "Big" Export Potential for PHL Agricultural Products in European Market." Business Mirror. https://businessmirror.com.ph/2021/01/16/market-study-reveals-big-export-potential-for-phl-agricultural-products-in-european-market/

DA (Department of Agriculture). n.d. "Investment Guide for Cacao." Accessed 15 March 2024. https://www.da.gov.ph/wp-content/uploads/2021/04/Investment-Guide-for-Cacao.pdf

DTI (Department of Trade and Industry). 2018. "The Philippines in the Natural Rubber Global Value Chain." *Department of Trade and Industry Policy Brief* 2018–01. https://dtiwebfiles.s3.ap-southeast-1.amazonaws.com/uploads/2019/11/2018-01-The-Philippines-in-the-Natual-Rubber-Global-Value-Chain.pdf

———. 2023. "CMCI San Isidro, Davao del Norte." *Cities and Municipalities Competitive Index*. https://cmci.dti.gov.ph/lgu-profile.php?lgu=San%20Isidro%20(DN)

Gbadebo-Smith, Orinola. n.d. "An Investor's Guide to Palm Oil." *Toptal Finance*. https://www.toptal.com/finance/market-research-analysts/palm-oil-investing

Gereffi, Gary, John Humphrey, and Timothy Sturgeon. 2005. "The Governance of Global Value Chains." *Review of International Political Economy* 12(1): 78–104. https://doi.org/10.1080/09692290500049805

Javers, Eamon. 2007. "Inside the Hidden World of Earmarks." *Business Week*, 17 September 2007, 56–59.

Kaplinsky, Raphael, and Mike Morris. 2001. *A Handbook for Value Chain Research*. Ottawa: International Development Research Centre. https://www.fao.org/fileadmin/user_upload/fisheries/docs/Value_Chain_Handbool.pdf

Khanna, Tarun, and Krishna Palepu. 1997. "Why Focused Strategies May Be Wrong for Emerging Markets." *Harvard Business Review*, July–August 1997. https://hbr.org/1997/07/why-focused-strategies-may-be-wrong-for-emerging-markets

Lawrence, Paul, and William Lorsch. 1969. *Organization and Environment*. Homewood Illinois: Irwin.

Laurence, Neuman. 2007. *Basics of Social Research: Qualitative and Quantitative Approaches*. 2nd ed. Boston: Pearson.

Magat, Severino. 1997. "Coconut Yield Improvement in Farmers' Fields through Research Based Fertilization Management in the Philippines. *CORD* 13 (02): 1–18. https://doi.org/10.37833/cord.v13i02.309

North, Douglass. 1991. "Institutions." *Journal of Economic Perspectives* 5(1): 97–112. https://doi.org/10.1257/jep.5.1.97

Ordoñez, Ernesto. 2011. "Growing Rich from Rubber." Philippine Daily Inquirer, 23 September 2011. Accessed 12 January 2022. https://business.inquirer.net/20811/growing-rich-from-rubber

PDRP (Philippine Rural Development Project). 2017. *Value Chain Analysis and Competitive Strategy: Coconut Oil (CNO), Virgin Coconut Oil (VCO)*. Mindanao: Department of Agriculture Mindanao Regions.

Pelkmans-Balaoing, Annette. 2019. "Levelling the Playing Field for the Rural Poor through Inclusive Value Chains." *UP Center for Integrative and Development Studies Discussion Series* 2019-01. https://cids.up.edu.ph/wp-content/uploads/2022/02/UP-CIDS-Discussion-Paper-2019-01-1.pdf

Peng, Mike W., Sunny Li Sun, Brian Pinkham, and Hao Chen. 2009. "The Institution-Based View as a Third Leg for a Strategy Tripod." *Academy of Management Perspectives* 23 (3): 63–80. https://www.jstor.org/stable/27747526

Porter, Michael. 1985. *The Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

———. 2008. "The Five Competitive Forces that Shape Strategy." *Harvard Business Review*, January 2008. https://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy

PCA (Philippine Coconut Authority). 2022. *The Philippine Coconut Industry Roadmap 2021–2040.*

PRDP (Philippine Rural Development Project). 2017. *Value Chain Analysis and Competitiveness Strategy: Coconut Oil (CNO) Virgin Coconut Oil (VCO) Mindanao.*

PSA (Philippine Statistics Authority). 2020. *Selected Statistics on Agriculture 2020*. Quezon City: Philippine Statistics Authority.

———. 2021. *Selected Statistics on Agriculture 2021*. Quezon City: Philippine Statistics Authority.

Ranada, P. 2014. "Will Aquino face the marching coconut farmers?" Rappler Philippines. 13 Jan.2018. https://www.rappler.com/nation/74725-benigno-aquino-coconut-farmers-march-coco-levy.

RDC XI (Regional Development Council XI). 2014. *Davao Region Industry Clusters Roadmaps, 2014–2030*. Downloaded on March 12, 2024. Davao_Region_Industry_Clusters_Roadmaps_2014-2030.pdf

Richard, Scott. 1995. *Institutions and Organizations*. Thousand Oaks, CA.: Sage.

Rittel, Horst, and Melvin Webber. 1973. "Dilemmas in a General Theory of Planning." *Policy Sciences* 4(2): 155–69. https://www.jstor.org/stable/4531523

Shamsudin, Datuk Dr Mad Nasir. 2019. "Crude Palm Oil Prices Forecast to Be Higher This Year." *New Straits Times*, 17 March 2019. https://www.nst.com.my/opinion/letters/2019/03/470217/crude-palm-oil-prices-forecast-be-higher-year

Soliman, Danica Marra. 2020. *What Will It Take to Improve the Welfare of PEF's Target Beneficiaries*. Quezon City: Peace and Equity Foundation.

Statista. 2024. "Coconut Production worldwide in 2022, by Leading Country." February 27 2024. https://www.statista.com/statistics/1040499/world-coconut-production-by-leading-producers/

Yokohama Tire Sales Philippines. n.d. "About Us." https://yokohamatire.ph/about-us/

Zion Market Research. 2019. "Global Report: Palm Oil Market Size & Share Estimated To Touch the Value Of USD 92.84 Billion In 2021." Globe Newswire, 30 July 2019. https://www.globenewswire.com/news-release/2019/07/30/1893425/0/en/Global-Report-Palm-Oil-Market-Size-Share-Estimated-To-Touch-the-Value-Of-USD-92-84-Billion-In-2021.html

# The UP CIDS Discussion Paper Series

The UP CIDS Discussion Paper Series feature preliminary researches that may be subject to further revisions and are circulated to elicit comments and suggestions for enrichment and refinement. They contain findings on issues that are aligned with the core agenda of the research programs under the University of the Philippines Center for Integrative and Development Studies (UP CIDS).

## CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES

Established in 1985 by University of the Philippines (UP) President Edgardo J. Angara, the UP Center for Integrative and Development Studies (UP CIDS) is the policy research unit of the University that connects disciplines and scholars across the several units of the UP System. It is mandated to encourage collaborative and rigorous research addressing issues of national significance by supporting scholars and securing funding, enabling them to produce outputs and recommendations for public policy.

The UP CIDS currently has twelve research programs that are clustered under the areas of education and capacity building, development, and social, political, and cultural studies. It publishes policy briefs, monographs, webinar/conference/forum proceedings, and the Philippine Journal for Public Policy, all of which can be downloaded free from the UP CIDS website.

## THE PROGRAM

The **Program on Escaping the Middle-Income Trap: Chains for Change (EMIT C4C)** examines inclusiveness and competitiveness in its research agenda and in its efforts at working with its partners to address social development challenges. It undertakes three projects: (1) big data analytics on manufacturing, labor, and exports; (2) action research on agriculture and fisheries value chains; and (3) action research on business-for-peace in Mindanao. EMIT C4C provides learning and partnering platforms for the academe, government, civil society, and the private sector to share lessons and act on recommendations.

# Editorial Board



# Program Editors



# Editorial Staff

## Get your policy papers published. Download open-access articles.

The *Philippine Journal of Public Policy: Interdisciplinary Development Perspectives* (PJPP), the annual peer-reviewed journal of the UP Center for Integrative and Development Studies (UP CIDS), welcomes submissions in the form of full-length policy-oriented manuscripts, book reviews, essays, and commentaries. The PJPP provides a multidisciplinary forum for examining contemporary social, cultural, economic, and political issues in the Philippines and elsewh ere. Submissions are welcome year-around.

For more information, visit cids.up.edu.ph. All issues/articles of the PJPP can be downloaded for free.

## Get news and the latest publications.

Join our mailing list: bit.ly/signup_cids to get our publications delivered straight to your inbox! Also, you'll receive news of upcoming webinars and other updates.

## We need your feedback.

Have our publications been useful? Tell us what you think: bit.ly/dearcids.

UNIVERSITY OF THE PHILIPPINES
CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES
Lower Ground Floor, Ang Bahay ng Alumni, Magsaysay Avenue
University of the Philippines Diliman, Quezon City 1101

**Telephone** (02) 8981-8500 loc. 4266 to 4268
(02) 8426-0955

**Email** cids@up.edu.ph
cidspublications@up.edu.ph

**Website** cids.up.edu.ph