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## Go Local: Current Conditions, External Factors & Challenges of Native Processed Meat Food Products of Lagawe, Ifugao, Philippines

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### Abstract

Rural development relies heavily on entrepreneurship. Rural food processing sector has a significant potential to contribute to the reduction of rural poverty and sustainable development. As a result, the current conditions, external factors, and challenges of native processed food products in Lagawe, Ifugao were investigated as a foundation for a comprehensive strategy to strengthen the native food processing industry in the locality. The qualitative-descriptive research approach was used to accomplish identified research objectives. Data were gathered from native processed food producers, local government unit officials, and agency representatives through key informant interviews. Through inductive analysis, results revealed that local products are in good condition based on the One Town One Product (OTOP) criteria in the Philippines. Producers of native processed food products have access to a variety of governmental institutions' technological, commercial, and social infrastructures. Native processed food products have the potential to be widely recognized as businesses start to develop their products to suit the requirements and standards of customers and other agencies in reaching a wider market. Areas for improvement were identified based on the OTOP criteria. Finally, varied strategies were put forth to strengthen and sustain the native food processing industry in the locality that is sustainable and profitable as an instrument for rural development.

**Keywords:** Cultural value, External factors, Native processed food products, One town one product, Product potentials, Philippines, Sustainable rural development

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## Introduction

COVID-19 tested the worldwide network and it is still fighting and recovering for its survival. It affects how people communicate, work, produce, exchange, consume, and live worldwide (Yap, 2020).

Similar problems brought about by the pandemic are also being suffered by the so-called "less favored" areas, primarily the interior and mountainous, requiring creative solutions (Fink et al., 2017). To cope with environmental turbulence of this magnitude, organizations must manage their capabilities by sensing, seizing, and transforming their resources and processes (Hamsal & Ichsan, 2020).

Based on the bottom-up development theory, one viable response to the economic crises in developing countries is to stimulate and sustain development in rural regions (Claymone & Jaiborisudhi, 2011). Entrepreneurship efforts that could positively influence rural regions are part of a larger rural development strategy (Lopez et al., 2019).

A perfect example of rural entrepreneurship promoting rural development is Japan's One Village One Product (OVOP) (Miagina et al., 2021). After the successful implementation in neighboring nations, the Philippines has been pushed to embrace One Village One Product (OVOP) in 2017, named One Town One Product (OTOP) then became OTOP Next Gen subsequently. This enables localities and communities to determine, develop, support, and promote culturally-rooted products or services where they can be the best at or best renowned for to become sustainable. The Philippine government's flagship initiative for MSMEs is the OTOP and OTOP NextGen, promoting inclusive economic growth. It aims to help MSMEs improve their products and services by assisting them with product design, quality, production, and marketability. Product development and improvements are among the significant interventions offered by OTOP and OTOP NextGen to help entrepreneurs reach a broader market. It involves conceptualizing, improving, producing, and marketing newly-rebranded goods (National Economic Development Authority; NEDA, 2022); Department of Trade and Industry; DTI, 2017).

The campaign aims to motivate rural development through community-based activities that use local resources and knowledge. It is a participatory rural development strategy that emphasizes regional specialties. It commits to promoting rural development through community-based activities that make use of local resources and knowledge. Hence, a combination of business skills, technology, networks, and a variety of service providers is needed (Ndione & Suzuki, 2019; Batalhão & Bostancı, 2019; Miagina et al., 2021).

In the case of rural folks, they become grassroots innovators to solve their community's challenges by devising sustainable development solutions through entrepreneurship (Mansi & Sharma, 2013), especially in times of crises and uncertainties. Entrepreneurship is seen as an essential component of society's progress, including developing sustainable rural areas (Pato, 2020). And opportunities for production are seen also in food processing (Negi, 2013).

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Agriculture-related businesses have recently had to adjust to new problems such market shifts, customer behavior changes, food safety, sustainability, and biotechnology. Rapid developments in the agro-food industry (due to industrialization and globalization), have prompted business firms to adopt economic survival strategies that are primarily focused on mass production, profit maximization (Kwil et al., 2020) including food security and safety (Fardet & Rock, 2020).

Food consumption in the modern world is inextricably related to processing. The degree of food processing also rises with the society's or nation's level of development (A`ckar, 2021). To guarantee food security and safety, food processing is crucial. Food has traditionally been preserved and kept safe by being salted, dried, smoked, sugared, pasteurized, or fermented. Preservatives and antioxidants are two of the many additives that are being utilized. Their use makes it possible to preserve foods during lengthy transports in trucks or boats from a production site to supply megalopolises all over the world and to assist typical consumers in covering, for example, seasonal gaps or in cases where food storage at the household level is not well-managed. Thus, food processing is crucial for feeding humanity (Keding et al., 2013; Fardet & Rock, 2020).

In many Asia-Pacific nations, the rural food processing sector has a significant impact on sustainable development and the reduction of rural poverty. By providing a ready market for agricultural products, creating off-farm jobs, and lowering rural-urban migration, it can increase farm earnings. Small- and medium-sized enterprises (SMEs) dominate the rural food processing sector and are subject to several challenges, including inadequate infrastructure, a lack of skilled labor and entrepreneurial talent, restricted access to necessary technologies, erratic demand, and slim profit margins (Negi, 2013; Woodhill et al., 2022).

According to Malinao (2022), both internal and external variables might affect a business's performance and become sustainable. Internal elements have to do with the characteristics of the businessperson or entrepreneur, the operations of the company, and the product itself. Current condition is the current state of the producers of locally made products in terms of their product quality, product design, packaging and labeling, marketability, branding, production, and delivery capacity, financial capability, innovation, cultural value, and customer experience. The assistance from various public and private organizations is an example of an external influence that is uncontrollable by the entrepreneur such as access to finance, market, technology, social infrastructures, and environmental factors. These factors are critical drivers for businesses to become sustainable. And according to Ndione and Suzuki (2019), having the potential locally-made products mean creating globally accepted products that reflect the pride of the local culture. Just like the OVOP of Japan, their success lies in the usage of three principles: local yet global, self-reliance and creativity, and human resource management.

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In the Philippines, one of the rural areas that aim for sustainable economic development is Lagawe, Ifugao. Lagawe, Ifugao, is working for a better business hub in Cordillera, Philippines. The municipality capitalizes on local products, services, and resources to improve the local community's welfare. Community members' creativity and productivity in using local resources, such as human resources, raw materials, commodities, technology, and local culture, are critical to their business operations (Malinao, 2021). Thus, to contribute towards rural development and become sustainable in the long run, it is critical to explore the potential and current state of native processed food products in Lagawe, Ifugao, as a source of income and as an impetus for the development of varied strategies to strengthen and sustain native food processing industry in the locality that is sustainable and profitable as an instrument for rural development. This would aid several government organizations, including the local government unit of Lagawe, the DTI, Ifugao State University, and other government agencies, in developing policies and procedures for the proposed sustainable rural development strategy. Finally, the existence of the Ifugao people engaged in entrepreneurial activity is considered a missing piece in the research literature, a field that has yet to be examined. Thus, the conduct and success of this research are critical.

## **Objectives**

This study explored the current conditions using the OTOP components, and access external factors affecting native processed food products, including challenges that emanate from the current conditions and external factors affecting producers as impetus for the development of a comprehensive strategy for processed native food industry for sustainable rural development.

## **Materials and Methods**

A qualitative research methodology was used in this study. Specifically, the qualitative descriptive research design through participant interviews among producers was used to determine the current conditions of native processed food products in terms of product quality, product design, packaging and labeling, marketability, branding, production, and delivery capacity, financing, and innovation capability, cultural value, and customer experience and on the extent of external factors support from the different government agencies, such as access to finance, technology, market, social infrastructure, and environmental factors affecting product producers.

The capital of Ifugao Province and a fourth-class municipality in the Cordillera Administrative Region is Lagawe, Ifugao, also referred to as Burnay. In the Philippines' Cordillera region, Lagawe, Ifugao, a God-loving and civically inspired community, is working to improve and cultivate a sensitive and resilient business community

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while living in a prosperous and environmentally balanced environment. Being the capital of Ifugao, Lagawe is the commercial and financial center of the province. Still, agriculture is the primary source of income in the town, where rice, sweet potato, cacao, and vegetables are produced. The community is rich in culture, indigenous raw materials, and entrepreneurial people inbred with skills and talents that are harnessed to come up with distinctive products worthy of both domestic and foreign markets, such as the production of food products, handicraft items, and wooden furniture. Such characteristics make Lagawe the ideal locale for the study.

The Department of Trade and Industry provided a list of registered companies doing business in Lagawe, Ifugao. There's a total of 256 registered businesses in the locality. This study used purposive sampling, wherein criteria sampling was used to identify the research group. Based on the evaluation criteria, the main research participants were the four (4) registered producers of native food processed products in Lagawe, Ifugao, Philippines. The selection criteria used to select the study participants were patterned from the One Village One Product movement of Japan. A detailed description of products was taken to support claims on the potential of native processed food products within the different barangays in Lagawe, Ifugao. In addition, one representative from different government agencies became part of the study based on the assistance provided to producers of native processed food products in terms of external factors identified in the study. Representatives from the Local Government Unit of Lagawe, Department of Trade and Industry - Ifugao, Provincial Agriculture Environmental Resources Office, Department of Labor and Employment, and Department of Science and Technology joined the study. To determine how the external factors affecting the producers within each barangay in Lagawe, Ifugao, the assistance provided was determined first from the primary participants. To validate findings from the primary participants gathered on access to external factors by native processed food product producers, in the qualitative stage, the semi-structured interview form was used also for the different government agencies supporting product producers.

With the current conditions of producers using the One Town One Product Framework, and the extent of external factors affecting producers, open coding was done at first, and then product descriptions were noted. In the proposed comprehensive strategies to strengthen the native food processing industry as a strategy for sustainable rural development, the inductive technique of writing was used based on the salient findings on the current conditions and external factors.

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## Results and Discussion



Source Department of Trade and Industry (2017)

**Figure 1** One Town, One Product Criteria Evaluation

The current condition in this study refers to the current state of the producers of the locally made products in terms of their product quality, product design, packaging and labeling, marketability, branding, production, and delivery capacity, financial capability, innovation, cultural value, and customer experience. Criteria evaluation used by the Department of Trade and Industry was based on the One Village One Product principles (local yet global, self-reliance and creativity, and human resource management). Principles were chopped into more minor scales, making it clearer to see the potential of each product.

### 1. Current Conditions

Data among producers of native processed food products were compared using the One Town One Product Framework in terms of product quality, product design, packaging and labeling, marketability, branding, production and delivery capacity, financial capabilities, innovations, cultural value, and customer experience.

#### 1.1 Product Quality

Product quality refers to the primary functions of the product, the probability that the product will perform satisfactorily for some time, and the reliability or shelf-life of the product, including the measures of quality control.

All processed food products use the famous *pinnunog* in the province as a healthy alternative meat product, with prolonged shelf lives. Generally, the shelf-lives of these processed meat products, treated under

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commercial pasteurization temperature, are between 3 and 6 weeks at chilling storage temperature. According to the entrepreneur, processed meat products are of good quality. The pork to be processed should be fresh, and the way it is prepared should be clean. Additionally, the producers of processed food products ensure appropriate and minimal use of additives and meat extenders and maintain the same process/recipe. Processed meat products are stored in a freezer. All products provide satisfactory performance at an acceptable price or a fair cost.

Food quality is a complex term that includes, in addition to safety, other intrinsic characteristics, such as appearance, color, texture, and flavor. Additionally, sensory qualities, chemical composition, physical features, amount of microbiological and toxicological pollutants, shelf life, and packaging and labeling all contribute to food quality that meets consumer expectations (Panea & Ripoll, 2020).

## **1.2 Product Design**

Product design concentrates on design elements such as shape, color, form, texture, and visual aesthetics of the product packaging, labeling, and branding.

Generally, the product designs of all products are available and enough to be recognized. However, the Processed Meat Product C product design is still in the process of development. According to participants, in all their product designs, they are guided by the DTI. Product design for Processed Meat Product C is still ongoing.

Product designs for each product are unique and consistent. For Processed Meat Product A, tangerine is used in the background of the product label. Font size and style are appropriate to the product packaging. No image was used to showcase the raw material used as the product uses transparent packaging. Thus, it is already visible. On the other hand, Processed Meat Product B uses sky blue for its background. Image for its final cooked output is added, and color combinations are correctly used as all product labels are readable.

## **1.3 Packaging and Labeling**

Based on the One Town One Product framework, packaging, and labeling refer to the adequacy and accuracy of the information or product identification. Product packaging refers to the material used in enclosing or protecting products for distribution, storage, sale, and use. While product labeling refers to compliance with mandatory labeling standards such as adequate, accurate, legible, and prominent, so they are distinct from the background.

### **1.3.1 Packaging**

The meat product production chain packaging plays a vital role in maintaining shelf life and in enhancing product quality at the consumption moment. A proper packaging design can contribute to microbial control and preserve good-quality fresh meat products when associated with appropriate storage conditions.

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With processed meat products, all are appropriately packaged and sealed, thus the products are safe and secured. For Processed Meat Product A, vacuum packaging is used.

Vacuum packaging is the primary method of protecting the color, flavor, and overall quality of processed meat from oxygen. The general procedure is to remove all air from the immediate environment of the product and hermetically seal the product within its package before allowing it to be re-exposed to the atmosphere. It is designed to work with preformed bags or pouches where the product is inserted into the bag or pouch before placing it into a clamshell chamber. Meanwhile, regular plastic packaging is used for Processed Meat Products B and C. Unlike Processed Meat Product A, the pork mixture is wrapped in wax paper or plastic to maintain shape instead of being stuffed into hog casings.

Packaging fresh meat is carried out to avoid contamination, delay spoilage, permit some enzymatic activity to improve tenderness, reduce weight loss, and, where applicable, ensure cherry-red color in red meats at the retail or customer level. The shelf-life extension can be achieved by suppressing the growth of microorganisms and enzyme activity during storage after meat preparation. Various intrinsic, extrinsic, and implicit preservation countermeasures should be adopted to achieve this goal, such as chilling, heating, drying, salting, fermenting, adding chemical preservatives, and packaging. Various quality attributes, such as color, odor, flavor, and water holding and binding capacity of meat deteriorate with extended storage time after animal carcasses are subjected to wholesale and then retail meat. Therefore, preservative packaging for raw meat must fulfill the responsibilities of delaying the physicochemical deterioration of the product as well as retarding the onset of bacterial spoilage. When applying any packaging technology to raw retail meats, the principal factors that must be considered are the retention of an attractive and fresh appearance, delay in microbial spoilage, and minimization of purge losses. An advantage of applying a vacuum in new meat packaging would be a longer shelf-life and improved tenderness. However, a principal drawback of vacuum-packaged meat in the retail market is a purplish red color, which is not preferred by consumers, although meat product blooms after exposure to air. Recently, the retail market for vacuum-packaged fresh meat has been increasing due to its ability to extend shelf-life, especially for pork (Gomez et al., 2020).

### 1.3.2 Labeling

On the other hand, Processed Meat Products A and B have adequate, accurate, visible, and prominent product labels. Processed Meat Products A and B contain the brand name, ingredients used, net weight, and manufacturer contact details. Expiry date marking is added. However, both failed to add dates. The product labels do not count date marking for manufacturing dates, nutrition labels, directions for use and storage, mandatory warnings, advisory statements, and declarations. It can also be noted that Processed Meat Product C does not have any product labels.



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Administrative Order Number 24, series 2010 by the Department of Health (2010) state that frozen and processed meat products for trade and commerce should carry necessary information, described, or presented in words or pictorials. The principal display panel shall be the part which, through design or general use, is presented or shown to the consumer under customary display conditions for retail use. The principal display panel must also include the product's name, net quantity, or content declaration, and the date of preparation or production shall appear in the same field of vision. Meanwhile, the information panel label shall include the ingredients listing, name, and address of the manufacturer, packer, or distributor. The optional basis is the number of servings, nutrition facts, and warning statements.

#### **1.4 Marketability**

Marketability assessment focuses on the identified target markets, marketing mix strategies (4Ps), business and marketing plan, market penetration strategy, product differentiation, and positioning strategy.

General consumers and tourists are the identified target markets of all Processed Meat Products. The business believes that the quality of its products is the reason behind continued patronage among consumers. The businesses also compute the selling price of the different products by adding the essential production cost per unit. For their product distribution, products are available in the OTOP hub- Lagawe, partner retail stores in the municipality like Lagawe Trading, and their sari-sari store on a cash basis only. They also supply nearby towns like Kiangan, Hingyon, and Bontoc before the African Swine Fever. However, the participants shared that they stopped distributing to other places when the flu struck the province.

The producers also create product awareness by promoting their product through word-of-mouth and Facebook. When asked for their business or marketing plan, nothing was provided. Since they use pork as the primary raw material in producing the final outputs, they temporarily stopped penetrating other markets. The usage of the native *pinnunog* differentiates them from the competition; the same is through for their positioning strategy.

According to Groenewald et al. (2014) and Wood et al. (2022), the small, processed meat business must focus the marketing program on one or two key attributes. The small business can further concentrate on characteristics that differentiate its brand from competitors. It should focus on these critical associations and reinforce them across the marketing program over time.

#### **1.5 Branding**

Branding refers to the product's brand identity, referring to the brand name and logo availability, and intellectual property registration of the product.

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All processed meat products have their brand names. Though not specified for Processed Meat Product C since it does not have product labeling, the owner plans to design the product label. All three product brands are easy to remember as they integrated the name of the business and the primary raw material used, like the *pinunnog*. The business name is DTI and LGU registered. However, all three brand names are not registered to IPOPHL (trademark).

### **1.6 Production and Delivery Capacity**

Production and delivery capacity refers to the maximum output that can be achieved in producing manufactured goods, consistency of supply to consumers, availability of logistics (storage and transportation), and network.

During the COVID-19 lockdown, no productions were made. During the surge of African Swine Fever (ASF), they lessened the production. By 2022, with loosening restrictions, the business produces 130-150 packs of the three products a month. They usually distribute products to different retail stores twice a month. The businesses offer free delivery for bulk orders within the municipality. They distribute the products using their vehicle. The production center serves as their storage area, and their *sari-sari* store serves as their physical store.

### **1.7 Financial Capability**

Financial capability assessment focuses on the monitoring of income and expenditures, the capability to prepare and analyze financial statements, the availability of budget plans, and the conduct of inventories.

As of the moment, the owners personally use their capital to resume business operations. The business also monitors income, expenditures, and money coming in and out of business through proper recording. Owners do not prepare financial statements because they do not know how to prepare those. The business also usually conducts inventory every production.

### **1.8 Innovations**

The significant improvements in product offerings, technologies used, components and materials, and incorporated software are aspects of the innovation capability of the business.

No improvements on products were developed, except for the product packaging and labeling.

According to the participants, they are willing to spend on improvement on packaging.

Regarding tools, equipment, and machines used for production, the businesses commonly use grinders, stuffers, impulse sealers, vacuum sealers, weighing scales, and improvised smoke chambers. Among the identified manufacturing technologies, the grinder and stuffer enable them to produce more accessible and faster products.

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Preservation techniques of natural origin stand out as they prolong the shelf life of meat products without negatively affecting the sensory features. Combining these techniques will make it possible to expand the offer of meat products elaborated with original raw materials, maintaining or even improving their nutritional and sensory characteristics for long periods.

### 1.9 Cultural Value

The pride of place of the locality in the product is seen as a substantial factor in ensuring business sustainability.

In the interview conducted, the usage of Pinunnog makes them culturally connected. *Pinunnog*, or the blood sausage, is a Native Ifugao delicacy. It is similar to the *longganisa* or the common sausage available in the market. Their only difference is the contents and how each is made. *Pinunnog* after processing is placed on the *hay-ungan* (a compartment above a fireplace) for smoking. The pinunnog will rest in the compartment above the fireplace or the *hay-ungan* like a long snake for it to be dry. A slice can give a delectable taste to vegetables and other dishes. The usage of *pinunnog* with the products makes the products culturally connected.

### 1.10 Customer Experience

Customer experience refers to the mechanisms for feedback, service recovery, and post-sales service. Only Processed Meat Products A has a service recovery strategy. Whenever they have problems with their products, after careful analysis, products are pulled-out and they offer product replacements only. There are no mechanisms for feedback and post-sales service for all processed meat products.

## 2. External Factors Affecting Processed Meat Product Producers

External critical success factors such as finance and subsidies, information and technology, marketing and social infrastructures affecting processed native meat product producers was anchored from the One Village One Project in Japan conducted in the study of Ndione and Suzuki (2019).

Generally, based on the interviews conducted, primary participants claimed that they never received any financial subsidy from the government to support their business operation; thus, it does not affect producers. In an interview with the different government agencies, the representatives of the Department of Labor and Employment (DOLE) through the Local Government Unit – PESO (LGU-PESO) Office and the Department of Science and Technology (DOST) –Ifugao do not offer cash assistance to the producers for start-up capital or to sustain business operations. The assistance is in the form of training, materials, and equipment. Conversely, the Department of Trade and Industry has the *Pondo sa Pagbabago at Pag-asenso* (P3) program. It is a financing initiative of the government to assist micro-producers throughout the country by providing affordable and cost-efficient microloans.

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On the other hand, as to access to technology, findings revealed that for participants, the use of their internet connection or own mobile data has greatly affected business operations. Further, participants of the study claim that access to some food processing technology and raw materials production technology from their pocket greatly affected or benefited the conduct of the business. According to participants, to date, no processing materials were availed. The majority of projects from the different government agencies mainly support agri-based products.

Processed Meat Product Producers have access to the market. Results revealed that the assistance in selling products within and national borders, in promoting their products online, and in mentoring and coaching producers in their product development efforts, has affected businesses to a *great extent*. This implies that the interventions of the government agencies in the province ensure the availability and visibility of Lagawe, Ifugao products to different municipalities, increasing product awareness and reaching a broader market. More so, this ensures product quality and sustainability of businesses. Likewise, all study participants are beneficiaries of Go Lokal Philippines and OTOP Hub Philippines of OTOP.PH which is also a program under the DTI. Go Lokal Philippines offers merchandise development assistance to produce commercially viable products for the market and market access to stores or spaces provided by retail partners such as malls and retail operators. Meanwhile, the OTOP Hub Philippines of OTOP.PH is a retail store or space where products from OTOP Next-Gen offerings can be found.

Generally, participants have great access to the physical elements of interconnected systems that significantly affect the conduct of the business. Businesses can provide commodities and services to consumers, enabling them to maintain and improve offerings significantly. Specifically, access to social infrastructures such as health care clinics, access to transportation networks such as roads, access to power utilities, and sanitation utilities, have affected the enterprise *greatly*. This can be attributed to the fact that these social infrastructures, such as roads, power, and sanitation utilities, are vital to the day-to-day operation of the business. Access to healthcare clinics also ensures that the workforce is ready to perform their job.

Additionally, access to water and waste management utilities has greatly affected business. However, it can be noted that, in general, access to the combination of traditional and digital communication utilities for business conduct has no effect as they do not practice these promotional tools. Notably, the use of the internet has greatly affected the conduct of business while using the telephone or mobile phone for the conduct of business has a more negligible effect. But still, participants believe that word of mouth is still the most powerful tool in establishing product awareness. Access to traditional communication methods like mail, telegraph, TV ads, radio ads, and print media also does not affect the business's operation. This can be attributed to the fact

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that with the advent of the internet and the surge of the COVID-19 pandemic, businesses are forced to shift from traditional ways of promoting products to digitalized marketing.

Generally, the identified environmental factors such as the supply of raw materials, logistics, competition, government regulations, and manpower affected the continuity of business operations *greatly*. Specifically, all participants of the study have partnered with different suppliers for the raw materials and for the processing aids and machines to ensure the production of final products to a *very great extent*. All businesses have also partnered with logistics for both inbound and outbound. Participants strongly agree that competition has affected the sustainability of the supply of raw materials, patrons, and profitability. Lastly, with the resumption of businesses after the strict lockdown, all enterprises have an adequate workforce to continuously produce the demands of customers. According to the participants in an interview, sustainable partnership with suppliers enables businesses to get or acquire good quality raw materials, which is an important factor in producing final quality outputs. Meanwhile, partnerships with outbound logistics ensure that the products reach actual and potential buyers.

### 3. Challenges of Processed Meat Product Producers

Comparable to other products in Lagawe, Ifugao, Philippines, a certificate of product registration from not FDA is unavailable. Proof of National Meat Inspection Service (NMIS) certification for using raw materials was not also clearly delineated in the interview. Product labels are also incomplete and absent for a particular product. Promotions are limited. Distribution outside the locality is temporarily discontinued due to ASF. Business, marketing, and budget plans are not available. Trademarks are not registered with the appropriate agency. According to the participants, the business does not prepare and analyze financial statements. Up till now, there have been no improvements in product quality. Feedback mechanisms and post-sales service are also not available. Access to finance and technology are not available to date in supporting local native producers of processed products.

### Conclusion

Based on the findings of the study, processed meat products produced by entrepreneurs in the locality are of good quality with safe raw materials, standardized production process, and recipe. Products are equally attractive and appealing, safe and secured with appropriate packaging materials, and adequate and evident product labels, including brand names for consumer reference. The marketing mix (product, price, distribution, and promotion) strategies of entrepreneurs of processed meat products are anchored on the needs and demands of the identified target markets. No preservatives are being added to products and using a native delicacy, the *pinunnog*, makes the business and product different from other producers. But due to African Swine

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Fever, products are available through delivery and from selected retail stores within the municipality. The business regularly monitors transactions of the business, including inventories. Improvements were made in the product packaging and labeling. Production tools and materials are available from the Department of Trade and Industry. The use of native delicacy *pinunnog* makes their product culturally connected. A product recovery strategy is being offered to compensate for unsatisfactory product performance.

Access to finance is from personal investments made by the owners and private organizations through loans that significantly affect business continuity. Access to technology such as production and processing materials, including internet connections is made available by owners. Market access and social infrastructures greatly influenced producers regarding the visibility and availability of products within and outside the municipality. Lastly, environmental factors such as the supply of raw materials and production materials, inbound and outbound logistics, human resources, and competition have greatly affected business operations to a very great extent.

Generally, local entrepreneurs in Lagawe Ifugao have the potential to produce products that are possible to compete within and outside the locality. A proposed comprehensive strategy to sustain and strengthen native processed meat industry to achieve rural development was made to guide local entrepreneurs on the necessary drivers to establish a sustainable industry-viable product to reach a broader market and become a rural development driver.

## Recommendations

### To the Product Producers:

1. *Product Quality.* To assure the quality of their items, product producers should think about adhering to the regulations of various organizations like the Food and Drug Administration. Proof of National Meat Inspection Service (NMIS) certification for using raw materials should also be secured. To increase the shelf-life of items and enable their sale outside of the province for a longer duration, trials, tests, and formal research may be carried out. For the firm to run smoothly and efficiently, a quality control system must be in place. This will promote quality awareness, efficient resource use, cost reduction, improved production processes and methodologies, and increased customer satisfaction.

2. *Product Designs.* Product designs must be based on consumer preferences and want, as well as market developments. Consideration should be given to the symmetry of the packaging components and the product layout that includes product labeling. To create a distinct picture of the product, product designs must also incorporate the Ifugao identity.

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3. *Packaging and Labeling.* Product packaging should meet the requirements set forth by various governing rules and regulations on its use, including being long-lasting and of the highest quality, affordable and practical, secure and safe, and environment-friendly. Locally available goods should adhere to the already established local product labeling standards. When products are intended for export, their packaging and labeling must meet all national regulations.

4. *Marketability.* Businesses should improve their marketing mix techniques. Gaining a larger market share may be greatly aided by consistent product quality improvements. In order to be remembered by customers, a differentiation strategy and positioning strategy may be quite helpful. Pricing strategies may be determined by supply and demand as well as the cost of producing the product. They might also take into account the price tactics employed by both direct and indirect rivals. Additionally, business owners may think about accepting a variety of payment methods, including cash, cards, mobile payments, and electronic bank transfers. To ensure availability and convenience for customers, business owners may employ intensive and unconventional product distribution techniques. To distribute products, they may also mix the usage of delivery, drop-off, and pick-up techniques. Clear and well-established policies should be in place for delivery modalities. Promotions and alliances with retail establishments may increase current market share and enter new areas.

Furthermore, both traditional and digital marketing strategies may be employed to increase product recognition through online and offline promotional activities. Personal selling and sales promotions are still appropriate, useful, and successful. The company should have a detailed plan that reflects its goals and objectives. A thorough company plan may incorporate a marketing strategy.

5. *Branding.* Branding activities may have an impact on positioning and differentiation strategy. Therefore, companies may think about creating distinctive, unique, and memorable brand names and logos. To safeguard the intellectual property of business owners, product identity should be registered with the appropriate government bodies, such as the Intellectual Property of the Philippines.

6. *Production and Delivery Capacity.* Total quality control, production, and operations schedules, and effective inventory management are tools that entrepreneurs can use. They should also routinely monitor and assess how well activities are being carried out. By making contacts both inside and outside the province, business networks should be strengthened.

7. *Financial Capability.* To examine and comprehend the business's present financial situation, entrepreneurs should be accountable for creating several financial reports. Entrepreneurs can plan and carry out interventions to support business growth in this way. The allocation must be done correctly. It's important to remember to budget for product certifications, production process technology, and product quality enhancements.

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8. *Innovations*. Producers may concentrate their efforts on developing the company's flagship product. They might take into account the number or abundance of raw materials in the area. The business should conduct continuous improvement in all facets of its processes, products, and services.

9. *Cultural Integration*. By incorporating cultural references into the design of the product and the manufacturing process, business owners can reinforce the cultural linkages of their products. The Ifugao method of product processing, which is best kept a secret, might be improved to guarantee product manufacturing within generations.

10. *Customer Experience*. The company's procedures should include feedback channels. Quick surveys could be quite helpful for gathering user feedback to enhance product performance. Reviews from customers are important since they capture their experiences with the products. Gathering customer feedback is a terrific way to build a positive perception of the company and market it. On the other hand, a policy on service recovery should be in place to convert dissatisfied customers to loyal customers. Lastly, after-sales service may be used as a business strategy as it typically leads to higher customer satisfaction, brand loyalty, and even word-of-mouth marketing. Entrepreneurs may consider offering customer service, training, and repairs for non-consumable products.

11. To maximize the potential of locally produced goods, entrepreneurs should also seize the chance and actively participate in the seminars, training, workshops, mentorship, and coaching activities of various private-government entities.

#### **To the Different Private and Government Agencies**

1. By offering government subsidies and support through the creation of a credit guarantee system, the resolution of collateral issues, and the provision of processing and bureaucracy for small businesses, the private and public sectors could strengthen their collaboration on ensuring guaranteed access to funds for small and midsize local entrepreneurs. To support their growth and maintain the most active businesses in a credit-constrained climate, it is essential to expand the funding options available and accessible to entrepreneurs. It's also important to increase people's knowledge of funding options.

2. To prevent duplication of the programs, projects, and activities of local entrepreneurs, the private sector and other government agencies should increase their collaboration and coordination efforts. Local and provincial governments may design government subsidy policies and collaborate with private lending institutions to help entrepreneurs get access to affordable financing. In-depth policies on access to social infrastructure and environmental aspects, such as raw material supply, partner logistics within and beyond the province, labor supply, and local market competition management, may also be developed by them. Strengthening connections



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within the municipality should be the DICT's main goal. Additionally, DICT should keep educating business owners about how to use various digital tools that can be beneficial. TESDA, DOST, and academic institutions might offer assistance with the technological developments required for the business's operation. The DTI and Academic Institutions may concentrate on empowering entrepreneurs from product conception and development through commercialization, including creating networks that cross national and international boundaries. As part of the requirements for higher education institutions, this would act as an extension program for academic institutions. To secure a steady supply of raw materials, the DA may concentrate on empowering local to regional farmers.

3. The programs, projects, and activities of both private and public entities must be continually monitored and evaluated to ensure their performance and long-term viability, which will support rural development.

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