

MARKET PRICE DYNAMICS OF GINGER (*Zingiber officinale*): A COMPARATIVE STUDY OF PUBLIC MARKETS IN NORTHERN SAMAR, PHILIPPINES

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ABSTRACT

This study presented the comparative market price analysis of ginger across the municipalities of Bobon, Catarman, San Roque, and Las Navas Northern Samar, Philippines. The essential information were obtained directly from 73 respondents through structured questioners followed by a personal interview.

This study documented the socio - demographic profile of the ginger retailer in the public market, determined and compared the prices of ginger in terms of supply, demand, seasonality, marketing, and identified the problems encountered by the retailers in the public market of four (4) identified municipalities. A qualitative research method was employed, utilizing survey questioners as main tool used to gather the necessary data.

The data were analyzed using descriptive statistical method such frequency counts. The findings revealed that the municipality of Catarman showed the highest volume of sales per kilo and per piece followed by San Roque with more price variation while Bobon and Las Navas fewer sales. The municipality of San Roque recorded the lowest average price as stocks aged and sales decreased, prompting customers to turn to alternative retailers. The data reflected the price differences influenced by supply, demand, transportation, and local markets condition.

The study recommended that improve market access and strengthen market information systems to deliver timely and to record accurate data on ginger prices, demand patterns, and seasonal supply trends, enabling retailers to make informed decisions on pricing and procurement strategies. Encouraging price transparency and strengthening local market systems can help ensure fairer trade practices and provide more reliable access to high-quality ginger at affordable prices.

BACKGROUND OF THE STUDY

The word ginger comes from the Middle English word *gingivere*. It can also be traced back to the Sanskrit word *sangavaram*, which means "horn root", based on its appearance (Benzie and Wachtel-Galor, 2011). *Zingiber officinale* is a perennial plant from the Zingiber family, which is considered an important spice in the world, has been cultivated and frequently used in medicine, food, and cosmetics across the globe.

In the Philippines, ginger is most popularly known as "luya" in Tagalog that is traditionally used as an organic medicine and food seasoning, also one of the priority vegetables of the Department of Agriculture. This rhizome is originally grown becoming increasingly popular (Valenzuela 2011) because it provides additional benefits, such as reducing the risk of diseases, aside from their primary nutrient function (Philippine Council for Health Research and Development, 2017).

The challenges of ginger marketing are common with other agricultural products, which include price changes due to seasonality of supply, competition and product deterioration (Endrias and Asfaw, 2011; Keating et.al 2009). Therefore, price fluctuation occurs in both retail and wholesale markets.

The public markets in Bobon, Catarman, San Roque, and Las Navas serve as important hubs for the distribution and sale of ginger in Northern Samar. These markets also reflect the impact of regional and national price changes, supply chain issues, and consumer preferences. Thus, a focused analysis of ginger prices in these key municipalities will provide valuable data for improving local agricultural practices, policymaking, and market interventions to stabilize prices and ensure fair returns for farmers.

The market trends provide insight into customer preferences in purchasing decisions, and retailers can set a price that makes the products profitable. Market price analysis of ginger in each municipality in Northern Samar holds significant importance in the Philippine context for several reasons such as livelihood support, economic development, market stability, consumer protection, trade opportunities, and cultural relevance. Analyzing the market price of ginger is crucial for economic resilience, agricultural sustainability, and food security in these municipalities.

Ramos et al. (2019) looked into the Filipino culinary traditions and the growing demand for ginger, finding that it is integral to Filipino food culture and its increasing demand has influenced market pricing in different regions. The study suggested that the growing popularity of ginger-based food and health products boosts its market demands.

Santos et al. (2019) stated that urban market, such as Metro Manila, typically has a higher ginger price due to transportation and distribution cost. In contrast, production areas like Bukidnon and Bicol report lower farmgate prices. However, farmers often received only a fraction of retail price due to the involvement of intermediaries in the supply chain.

Bautista et al. (2018) cited the price of ginger in the rural markets and municipal centers in their report on the economics of high-valued crops in the Philippines. The report argued that understanding price trends at the municipal level can assist in addressing both supply chain and pricing issues that affect small producers and traders in Northern Samar.

The report mentioned that ginger prices often experience sharp increases and decreases due to variations in production volume, pest infestations, and transportation costs.

Ginger is an essential ingredient in Filipino cuisine, used not only for cooking but also in traditional medicine. Consumer demand, both locally and internationally, influences the price. The demand from the domestic market, especially in major cities like Tacloban, also drives prices in smaller markets. (Gonzales, A., and Dalid, S. 2018). The Role of Government Support in the Development of Ginger Production discussed how local government and agriculture departments are working to support ginger farmers with training and better access to information. However, the study also found out that more infrastructure development is needed to stabilize market prices.

According to the Food and Agriculture Organization, ginger production is looking bright because harvesting areas and production have increased, and are estimated to enlarge in the coming years (Anon 2003). The market price of ginger in the Philippines fluctuates significantly due to seasonal supply and demand patterns, competition with imports, and logistical inefficiencies. A study by Gamboa (January 2017) highlighted that during peak harvest season, price can drop dramatically due to over supply, while lean months witness higher prices. Additionally ginger prices are influenced by the integration of local market, as ginger imports from nearby countries like China often provide cheaper alternatives.

Santos, R. (2016) discussed the market price volatility of high-value crops in the Philippines. This paper discussed the price variability of key crops like ginger and highlights how local market conditions, climate change, and production volume impact prices. In areas like Northern Samar, local small holder farmers are vulnerable to such fluctuations due to limited access to storage, and transportation, and infrastructure.

Vasala (2004) stated that ginger, the root of the plant *Zingiber officinale* Roscoe which belongs to the Zingiberaceae family, is globally one of the most commonly used a spices and medicinal agents. The plant is known as *Sringavera* in Sanskrit and it is speculated that this term may have given way to Zingiberi in Greek and then to the Latin term Zingiber.

Methodology

This study was conducted in the municipalities of Bobon, Catarman, San Roque, and Las Navas, Northern Samar. Bobon is a municipality in the province of Northern Samar, located in the Eastern Visayas region of the Philippines. It is situated on the northern part of the island of Samar, near the Philippine Sea. Bobon is known for its rural landscape, agricultural activities, and scenic coastal areas. Like many other areas in Northern Samar, Bobon is known for its rural landscape agricultural activities, and scenic coastal areas. Bobon's challenges are related to infrastructure and development but it has a rich cultural heritage and a close-knit community.



Figure 1. Map of Northern Samar showing the municipality of Bobon

Catarman, officially the Municipality of Catarman, is a 1st class municipality. Catarman, the capital town of the province of Northern Samar, is located in the Eastern Visayas region of the Philippines. It is situated on the northern part of the island of Samar, with the city serving as a gateway to the province. Catarman has a mix of rural and urban characteristics, with agriculture being a significant part of its economy, alongside some tourism and trade. The town is known for its historical landmarks, such as the Catarman Cathedral, and its proximity to beautiful natural attractions, like beaches and waterfalls. The Northern Samar region, including Catarman, has a rich cultural heritage and offers a peaceful environment for both locals and visitors.



Figure 2. Map of Northern Samar showing the municipality of Catarman

San Roque, officially the Municipality of San Roque, is a 4th class municipality in the province of Northern Samar, Philippines. The municipal center of San Roque is situated at approximately 12° 32' North, 124° 52' East, in the island of Samar. Elevation at these coordinates is estimated at 7.4 meters or 24.2 feet above mean sea level. It lies on the northern part of the island of Samar, and it is known for its rural landscapes, coastal areas, and proximity to the Pacific Ocean.

The town is part of the 1st Congressional District of Northern Samar and is located south of the town of Catarman, the provincial capital. San Roque is accessible by road from nearby towns and is known for its local agriculture and fishing industry.



Figure 3. Map of Northern Samar showing the municipality of San Roque

Las Navas is a municipality in Northern Samar, located in the Eastern Visayas region of the Philippines. It is situated on the northern part of Samar Island, bordered by the Samar Sea to the north. The town is about 30 kilometers away from Catarman, the provincial capital.

Geographically, Las Navas is located at approximately 12.5°N latitude and 124.6°E longitude. It is part of the first congressional district of Northern Samar.

During the Spanish regime, one of the municipalities that were recognized as a town was Las Navas, formerly known as “Bungto”, meaning town. Upon recognition, a parochial church was constructed with a parochial priest as head of the town. It is situated in the interior part of the island along the Catubig River. It comprises wide lowlands between hills now known to be the Catubig Valley. The river is big enough that small tonnage or motored vessels can easily sail to the source of the river.

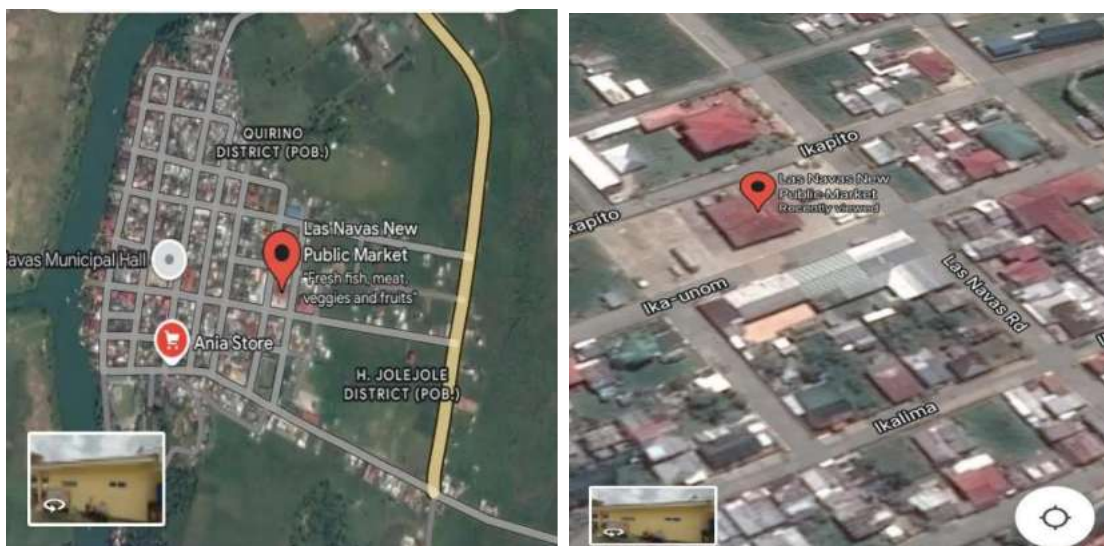


Figure 4. Map of Northern Samar showing the municipality of Las Navas

The respondents of the study included all the ginger retailers in the four (4) identified municipalities of Northern Samar.

Purposive sampling was used to target market retailers in the municipalities of Bobon, Catarman, San Roque, and Las Navas Northern Samar.

The study employed a descriptive research method utilizing questionnaire as the main tool to gather the necessary data.

Two data generation tools were used in this study, namely: survey questionnaire which was a structured and an interview was also conducted. Structured survey questionnaire was composed of four (4) parts: Part I Socio-Demographic Profile; Part II Market Price Comparison; Part III Factors Affecting Prices; Part IV Problems Encountered.

Data Gathering Procedure

The process of gathering relevant information was made through survey with the use of prepared survey questionnaire, and personal interview was also conducted by the researchers to cross-check some necessary information. This approach was followed to ensure a viable response of the respondents.

The researchers personally administered the questionnaires separately. The objectives of the study were thoroughly explained and the respondents were assured that their answers were held with strict confidentiality to encourage them to be candid and sincere in their responses.

Data Analysis

This study used statistical tools such as frequency counts and mean, utilizing these tools were based on the objectives of the study and the kind of data that were collected

The frequency counts, averages, and percentage were used to analyze the data gathered.

The following formula was used in computing the mean.

$$\bar{x} = \frac{\sum X}{N}$$

Where:

$\bar{x}$ = mean

$\sum$ = summation sign

N = total frequency

2. Percentage

$$\text{Percentage} = \frac{f}{n} \times 100$$

Where:

P= Percentage value

f=Frequency

n=total number of samples

100= constant value

RESULT AND DISCUSSION

Age

Table 1 shows that most of the respondents belonged to the age bracket of 44-54 years old with 27 or 36.98%; followed closely by 22-32 years old with 14 or 19.18%; age group of 55-65 years old with 13 or 17.81%; and age bracket of 66-76 years old with three (3) or 4.11%

The findings showed that the respondents were predominantly in their productive and working age, particularly 44-54 years old. This age group is typically active in economic and community activities, which may affect their perspectives and behaviors relevant to your study.

Table 1. Age bracket distribution

Age Bracket	Frequency	Percentage (%)
22–32	14	19.18
33–43	16	21.92
44–54	27	36.98
55–65	13	17.81
66–67	3	4.11
Total	73	100.00

Sex

Female respondents comprised a significant majority at 71.23% or 52. Male respondents were fewer at 28.77%. This might be due to the nature of the study's topic (e.g., household management, market participation) where women are more actively involved or available for interviews. It may also reflect community demographic patterns.

Table 2. Sex

Sex	Frequency	Percentage (%)
Female	52	71.23
Male	21	28.77
Total	73	100.00

Civil

Married respondents captured the largest portion at 73.97% 54. Single individuals accounted for 23.29% or 17, and widows made up a small fraction (2.74%) or two (2). The dominant presence of married respondents suggests that most participants household and family responsibilities, potentially influencing their responses, particularly in studies involving livelihood, consumption behavior, or community involvement.

Table 3. Civil Status

Status	Frequency	Percentage (%)
Single	17	23.29
Married	54	73.97
Widow	2	2.74
Total	73	100.00

Educational Attainment

Table 4 shows that the majority of the respondents were able to attend high school level with 23 or 31.51%; were high school graduates with 20 or 27.39; attended college level with 13 or 17.81%; were able to attend elementary level and were college graduates both with six (6) or 8.22; and attended elementary level with 5 or 6.85%. It implies that most of the ginger farmers' educational attainment was high school level.

Table 4. Educational Attainment

Educational Attainment	Frequency	Percentage (%)
Elementary Level	5	6.85

Educational Attainment	Frequency	Percentage (%)
Elementary Graduate	6	8.22
High School Level	23	31.51
High School Graduate	20	27.39
College Level	13	17.81
College Graduate	6	8.22
Total	73	100.00

Distribution of Respondents According to Municipalities

The table 5 shows the geographic origin of the 73 respondents across four (4) municipalities. Catarman accounted the majority with 41 respondents (56.16%); San Roque followed with 16 respondents (21.92%); and both Bobon and Las Navas had eight (8) respondents each (10.96%).

The data indicate that more than half of the respondents came from Catarman, likely due to its central location, higher population, or economic activity. This concentration could influence the findings to reflect the specific conditions or practices in Catarman more strongly than in other municipalities.

Table 5. Distribution of Respondents according to Municipalities

Respondent Municipality	Frequency	Percentage (%)
Catarman	41	56.16
San Roque	16	21.92
Bobon	8	10.96
Las Navas	8	10.96
Total	73	100.00

Distribution According to the Type of Respondent

The respondents, based on their role in the supply chain, comprised 100% (73 respondents) were retailers. There were no wholesalers among the respondents. The exclusive participation of retailers suggests that the study focused on the retail level of the market chain. This narrows the scope of the findings to consumer-level pricing, handling, and practices, and excludes wholesale dynamics. The perspectives captured were from those directly interacting with end-buyers.

Year of Selling Ginger

Table 6 shows the distribution of respondents based on their years of selling ginger. The majority, 50.68% of the 73 respondents had been selling ginger for over five (5) years. A significant portion (28.77%) had sold ginger for 3-5 years, while a smaller percentage (16.44%) had been selling for 1-3 years. Only a small minority (9.11%) had sold ginger for less than a year. This indicates a relatively experienced group of ginger sellers, with a substantial number having significant experience in the market. This could be further analyzed to explore potential correlations with factors such as sales volume, pricing strategies, or market knowledge.

Table 6. Distribution of Respondents according to Year of Selling ginger

Years of Selling	Frequency	Percentage (%)
Less than 1 year	3	4.11
1–3 years	12	16.44
3–5 years	21	28.77
Over 5 years	37	50.68
Total	73	100.00

Market price comparison

The data in Table 7 Market Price Comparison shows the distribution of product prices. The findings reveals that ginger prices vary among the municipalities. Most prices fell within the ₱121–141 and ₱141–161 ranges, indicating mid-range pricing overall. In Bobon, prices were fairly balanced between ₱121–141 and ₱141–161 (each at 37.5%), with

fewer low and high prices. Catarman showed consistent mid-range prices, with 51.3% of observations between ₱121–161. San Roque had the widest price spread, including the highest proportion 101-161 pesos (35.29%) in the ₱161–181 range. Las Navas displayed a balanced distribution across the lower three price ranges, with no prices above ₱161.

The data indicate that half of the observations fell within the 5–10 pieces range and the other half within the 15–20 pieces range. However, across the measured observations, a higher proportion tended toward the lower range (5–10 pieces), with 88.9% and 66.7% of cases reporting 5–10 pieces, suggesting that most samples consist of fewer pieces

Table 7. Market comparison

Municipality	Price Range (₱)	PriceRange (%)	Common No. Of Pieces	Quantity Ranges (%)
Bobon	121-161	37.5	5-10	88.9
Catarman	121-161	51.3	5-10	66.7
San Roque	161-181	35.29	5-0 & 15-20	
Las Navas	101-161	33.34	5-10 & 15-20	

Selling of Ginger per Kilo in the Month of October

Table 8 presents the ginger selling per kilo, based on a survey of 73 respondents. The most frequent price range was 150-160 pesos per kilo, accounting for 36.98% of the responses. The price range of 130-140 pesos per kilo was 23.29% and followed by 170-180 pesos per kilo at 20.55%. The remaining price ranges (100-120, 190-200, and 220-250) each represented smaller percentages of the total responses. This data suggests a concentration of ginger prices around the 150-160-peso mark, with some variation at higher and lower price points.

Table 8. Selling of Ginger in the Month of October

Price per Kilo (Peso)	Frequency	Percentage (%)
100–120	6	8.22
130–140	17	23.29
150–160	27	36.98
170–180	15	20.55
190–200	6	8.22
220–250	2	2.74
Total	73	100.00

Selling of Ginger per Kilo in the Month of November

Table 9 shows the price per kilo of ginger sold in November, based on 73 responses. The most common price range was 170-180 pesos per kilo, representing 45.20% of sales. The 150–160-peso range accounted for 30.14% of sales. Prices in the 190–200-peso range made up 12.13%, while the 130-140- and 220-250-peso ranges comprised 8.22% and 4.11%, respectively. No ginger was reported sold in the 100–120-peso range during November. This data shows a noticeable shift in pricing compared to the previous month, with a higher concentration of sales in the higher price brackets.

Table 9. Selling of Ginger Per Kilo in the Month of November

Price per Kilo	Frequency	Percentage (%)
130–140	6	8.22
150–160	22	30.14
170–180	33	45.20
190–200	9	12.33
220–250	3	4.11
Total	73	100.00

Selling Ginger per Kilo in the Month of December

Table 10 shows the distribution of ginger prices per kilo in December, based on data from 73 respondents. Similar to November, the 170–180-peso price range was the most common, accounting for 45.20% of sales. The 150–160-peso range followed at 21.92%, and the 190–200-peso range comprised 23.29%. Smaller percentages were observed in the 130-140- and 220-250-peso ranges (6.85% and 2.74%, respectively). The data indicates a continued trend of higher ginger prices compared to earlier months, with a significant portion of sales concentrated in the higher price brackets.

Table 10. Selling Ginger per kilo in the Month of December

Price per Kilo	Frequency	Percentage (%)
130–140	5	6.85
150–160	16	21.92
170–180	33	45.20
190–200	17	23.29
220–250	2	2.74
Total	73	100.00

Current Price Range

Table 11 shows the current price range of ginger in the market. The most frequent price range was 130-140 pesos per kilo, comprising 42.46% of the responses. The 150-160 peso range accounted for 35.62% of the data. A smaller percentage of respondents reported prices in the 100-120 peso range (15.07%), while only a small fraction reported prices in the 160-170 and 180-200 ranges (5.48% and 1.37%, respectively). It implies of the ginger prices, bracket of the 130-140 peso range, was the most common price range of ginger at present.

Table 11. Current Price Range of Ginger

Current Price	Frequency	Percentage (%)
100–120	11	15.07
130–140	31	42.46
150–160	26	35.62
160–170	4	5.48
180–200	1	1.37
Total	73	100.00

Preference in Purchasing Ginger

Table 12 shows consumer's preferences regarding locally grown versus imported ginger, based on 78 responses. A significant majority (57.69%) of respondents expressed no preference between locally grown and imported ginger. A substantial minority (41.03%) preferred locally grown ginger, while only a very small percentage (1.28%) favored imported ginger. This shows that strong preference for locally sourced ginger, but also a large segment of consumers who were indifferent to the origin of the product.

Table 12. Preference in Purchasing Ginger

Preference	Frequency	Percentage (%)
Locally grown ginger	32	41.03
Imported	45	57.69
No preference	1	1.28
Total	78	100.00

*Multiple Responses

Prices Compare to Other Competitors

Table 13 compares ginger prices to those of the competitors. The majority, 57.69% of respondents, reported that ginger prices were the same as competitors. A significant portion of 28.77% reported lower prices compared to competitors, while only a small percentage of 9.59% reported higher prices. This suggests that the surveyed ginger prices were generally competitive, with a majority aligning with or undercutting competitor pricing.

Table 13. Prices Compare to Other Competitors

Price Compare	Frequency	Percentage (%)
Higher	7	9.59
Lower	21	28.77
Same	45	61.64
Total	73	100.00

Fluctuation in Ginger Prices

Based on the information gathered all respondents a crossed the four (4) municipalities of Bobon, Catarman, San Roque, and Las Navas reported that they observed fluctuation in ginger prices throughout the year. This 100% affirmative responded strongly indicates that price variability was common a widely experienced issue among ginger producer, trader, or consumer.

Reason for the Fluctuation

The data show that the identified municipalities acknowledged that there was a noticeable fluctuation in ginger prices. The main reasons behind these fluctuations, the responses highlighted several key factors. The most commonly cited reason was transportation with 34 responses, indicating that challenges related to moving ginger from farms to market. Supply shortage was the second most mentioned reason with 32 responses, pointing to issues in consistent and sufficient production. Seasonal demand also played a major role with 24 respondents, noting that prices tend to rise during certain times of the year. Weather conditions was also mentioned by 20 respondents and only three (3) responses pointed to market demand in nearby areas. Notably, labor cost received no responses, implying that it was not perceived as a major contributor to price fluctuations.

Table 14. Reasons for fluctuations

Fluctuations	Frequency	Percentage (%)
Seasonal demand	24	21.24
Weather condition	20	17.70
Market demand in nearby areas	3	2.65
Supply shortage	32	28.32
Transportation cost	34	30.09
Total	113	100.00

* Multiple Responses

Month of Ginger Price the Highest

The table 15 shows the month where ginger price is highest than the rest of the month. December was the month with the highest price 53 or 38.45%, indicating it was the peak harvest season. Conversely, April, May, June, and July showed no ginger harvest. The data suggest a strong seasonal pattern in ginger production.

Table 15. Month of Ginger Price the Highest

Months	Frequency	Percentage (%)
January	4	2.89
February	1	0.73
March	3	2.17
August	3	2.17
September	21	15.22
October	23	16.67
November	30	21.74
December	53	38.41
Total	138	100.00

*Multiple Responses

Ginger Price Highest in Certain Months

The table shows that the high price of ginger in certain months is due to a combination of factors. High demand accounted for only 7.5% of the total influence, while harvest season (10%), low supply (25%), and weather conditions (37.5%) played significantly larger roles. The high demand for ginger contributed the remaining 7.5%, indicating that while supply chain issues and weather heavily impact price, strong consumer demand also plays a crucial role in driving up the cost of ginger.

Table 16. Ginger price in certain months

Ginger Price in Certain Months	Frequency	Percentage (%)
High demand	6	7.50
Harvest season	8	10.00
Transportation cost	16	20.00
Low supply	20	25.00
Weather condition	30	37.50
Total	80	100.00

*Multiple Responses

Month of Ginger Price is Lowest

Table 17 shows the distribution of responses indicating the month with the lowest ginger price. Of 119 responses, February was the most frequent response (39 out of 119 or 32.77%), suggesting it is widely perceived as the month with the lowest ginger prices. February and March together accounted for a significant majority (63.76%) of the responses, indicating that the lowest prices are likely concentrated in the first quarter of the year. The remaining months showed considerably lower frequencies, suggesting that low prices are less common during these periods.

Table 17. Month of Ginger Price is Lowest

Months	Frequency	Percentage (%)
January	19	15.97
February	39	32.77
March	37	31.09
April	8	6.72
May	4	3.36
June	6	5.04
July	3	2.53
August	2	1.68
September	1	0.84
Total	119	100.00

*Multiple Responses

Analysis of Market Price Trends

The current ginger price mostly fell within ₱100–140 per kilo (64.3%). Last month of February, prices were mostly between ₱140–180 per kilo (50.7%), while six (6) months ago on September most prices ranged from ₱180–220 per kilo (52%). The minimum price was generally ₱100–140 (80%), and the maximum price commonly reached ₱140–180 (57.6%). Overall, this indicates a decreasing price trend for ginger over the past six months, with most transactions currently occurring at the lower price range.

Table 18. Analysis of Market Price Trends

Trends	₱100-140		₱140-180		₱180-220		₱220-260		₱260-300		Total Of F	Total of %
	F	%	F	%	F	%	F	%	F	%		
1.Current price of ginger per kilo.	47	64.3	26	35.6							73	100

2.Price of ginger per kilo last month.	11	15	37	50.7	20	27.4	5	6.8			73	100
3.Price of ginger per kilo 6 months ago.	3	4.1	31	42.5	38	52	2	2.7			73	100
4.Minimum price per kilo.	56	80	13	18.5	1	1.5					70	100
5. Maximum price per kilo of ginger are sold.	6	70	45	57.6	13	16.7	13	16.7	1	1.3	78	100

Price Adjustment

Table 19 presents the ginger price adjustments per kilo. Majority 51.95% or 40, of the respondents reported there was an adjustment in price rarely. A considerable portion, 24.67% or 19, adjusted prices monthly, while smaller 34 percentages adjusted prices weekly with 12.99% or 10, and daily with 10.39% or eight (8). This indicates that most ginger sellers did not frequently adjust their prices, with a preference for infrequent price changes. It implies that ginger prices in the public markets of Northern Samar remain relatively stable, with adjustments made only, when necessary, likely due to supply or demand shifts.

Table 19. Price adjustment of ginger per kilo

Price Adjustment Per Kilo	Frequency	Percentage (%)
Daily	8	10.39
Weekly	10	12.99
Monthly	19	24.67
Rarely	40	51.95
Total	73	100.00

Ginger Price Based on Quality

Table 20 shows that majority 95.89% or 70, of the respondents indicated that ginger prices did varied depending on quality. Only few, 4.11% or three (3) stated that price did not vary based on quality. This strongly suggests that ginger quality is a significant factor in determining price. It implies that a majority of the respondents, 70 or 95.89%, confirmed that ginger prices change based on quality, while only three (3) disagreed. This indicates that in public markets in the Catarman, Las Navas, San Roque, and Bobon, Northern Samar ginger quality plays a major role in determining its price, with better quality likely sold at higher rates.

Table 20. Ginger Price Based on the Quality

Quality of Ginger	Frequency	Percentage (%)
Yes	70	95.89
No	3	4.11
Total	73	100.00

Price Promotion or Discount

All or, 100 % of the respondents confirmed that they reported using price promotions or discounts. Majority of the ginger retailers offered discounts or promotions based on several factors.

Typical Discount on the Price of Ginger per Kilo

Table 21 shows the discounts offered on ginger per kilo. The largest discount was offered to the quality of ginger with 20.66% or 19; followed by bulk purchases with 16.32% or 15; customer loyalty with 46.72% or 43; and competition between vendors with 11.96% or 11 also contributed significantly. Market condition accounted for a smaller portion with 4.34% or 4. The total rat of 92 represented 100%, likely due to rounding. This data highlights the importance of ginger quality and bulk purchases in determining discount offered to the customer. Discounting practices based on customer loyalty are consistent with relationship marketing principles, which emphasize customer retention as a key determinant of business success (Kotler, Keller, & Chernev, 2022). Moreover, volume-based discounts are widely recognized as a pricing strategy to encourage larger purchases and increase sales efficiency (Nagle,Hogan & Zale,

2016). Product quality also significantly influences pricing decisions in agricultural markets, as quality variations affect consumer demand and perceived value(Tomek & Kaiser, 2014).

Table 21. Typical discount on the price of ginger per kilo

STATEMENTS	AGREE		DISADREE		NEUTRAL		TOTAL	
	F	%	F	%	F	%	F	%
1.The price per kilo has increased last month	53	72.61	17	23.28	3	4.11	4.11	100
2. The price of ginger is mainly determined by supply and demand	66	90.41	4	5.48	3	4.11	4.11	100
3.The price per kilo of ginger in the market is reasonable based on the quality offered.	67	91.78	3	4.11	3	4.11	8.23	100
4.There is competition between vendors in the market that affects ginger prices.	22	30.13	45	61.64	6	8.23	8.23	100
5. The demand for ginger in the market is relatively constant through the year.	51	60.86	7	9.59	15	8.23	8.23	100

*Multiple Responses

Level of Acceptances Performance of the Price and Market of Ginger

Respondents answered five (5) statements indicating their level of agreement (Agree, Disagree, Neutral). The results showed a strong agreement that the price of ginger was determined by supply and demand (66 out of 100 respondents agreed). There was also significant agreement that the price was reasonable given the quality (66 agreed). However, there was less agreement on whether the price increased in the last month (53 agreed) or whether competition affected prices (only 22 agreed). Finally, there was little consensus on whether demand remained constant throughout the year (51 agreed). The totals in the table represented the percentage distribution of responses for each statement.

Table 22. Level of Acceptance Performance of the Price and Market of Ginger

Typical Discount	Frequency	Percentage (%)
Quality of ginger	19	20.66
Bulk purchases	15	16.32
Customer loyalty	43	46.72
Competition between vendors	11	11.96
Market condition	4	4.34
Total	92	100.00

Price Basis on the Market of Ginger

In the four (4) identified municipalities of Northern Samar, the majority of ginger retailers (63 respondents) set their ginger prices based on the current market rate, while a smaller number (10 respondents) relied on competitor pricing. This shows that pricing was mainly influenced by overall market condition

Table 23. Price basis on the market price of ginger

Come Up With the Price of Ginger	Frequency	Percentage (%)
Competitor	10	13.70
Market price	63	86.30
Total	73	100.00

Source of Ginger

Retailers sourced their ginger from various locations, with Quezon being the most common with 21 responses and followed by Las Navas with 15. Other sources included Ormoc and Tacloban (6) Bicol (4), and a few from Catarman and Davao. This indicates that ginger supply came from both local and regional areas, with Quezon as the primary source

Table 24. Source of ginger

Sources	Frequency	Percentage (%)
Quezon	21	28.00
Las Navas	15	20.00
Davao	5	6.67
Bicol	11	14.67
Ormoc	8	10.67
Tacloban	7	9.33
Catarman	4	5.33
Palapag	3	4.00
Calbiga	1	1.33
Total	75	100.00

*Multiple Responses

Supply of Ginger Sufficient to Meet the Market Demand

Most vendors (68 respondents) stated that the ginger supply was enough to meet local market demand, while a small number (5 respondents) mentioned it was only sometimes sufficient. This implies that ginger availability is generally reliable, with minor instances of limited supply.

Table 25. Supply of ginger sufficient to meet the market demand

Sufficiency	Frequency	Percentage (%)
Yes	68	93.15
Sometimes	5	6.85
Total	73	100.00

Challenges in Trading Ginger

The table shows that the biggest challenge in trading ginger was limited access to market, accounting for 39.73% of the responses. High transportation cost was the second biggest challenge (24.66%), followed by lack of storage facilities (19.18%) and limited buyer base (16.43%). The data was based on a total of 73 responses.

Table 26. Challenges in Trading Ginger

Challenges	Frequency	Percentage (%)
High transportation cost	18	24.66
Lack of storage facilities	14	19.18
Limited access to market	29	39.73
Limited buyer base	12	16.43
Total	73	100.00

Supply of Ginger

Table 27 presents data on the sustainability of ginger supply across four (4) locations: Bobon, Catarman, San Roque, and Las Navas. In Bobon, the supply was predominantly consistent (62.5%, 5 out of 8 responses), while inconsistent supply was reported by 37.5% (3 respondents). Catarman showed a more varied supply pattern, with consistent supply being the most common (53.66%, 22 out of 41 responses), followed by inconsistent supply (26.83%, 11 respondents), and very consistent supply (19.51%, 8 respondents). San Roque experienced a higher rate of inconsistent supply

(56.25%, 9 out of 16 responses), with consistent supply at 31.25% (5 respondents) and very consistent supply at 12.5% (2 respondents). Finally, Las Navas showed a similar distribution to Bobon, with consistent supply dominating at 62.5% (5 out of 8 responses) and inconsistent supply at 37.5% (3 respondents). Overall, the data indicated variability in ginger supply consistency across the four (4) locations, with some areas exhibiting more reliable supplies than others.

Table 27. Supply of ginger

Municipality	Rate	Frequency	Percentage (%)
Bobon	Inconsistent	3	37.50
	Consistent	5	62.50
Catarman	Very Consistent	8	19.51
	Inconsistent	11	26.83
	Consistent	22	53.66
	Very Consistent	5	31.25
San Roque	Inconsistent	9	56.25
	Consistent	2	12.50
Las Navas	Very Consistent	5	62.50
	Consistent	3	37.50
Total		73	100.00

Variation in the Quality of Ginger Throughout the Year

Based on the result of the study, almost 100% respondents observed the variation in the quality of ginger across different times of the year. This means that seasonal change have a noticeable impact on the ginger quality in the municipalities of Bobon, Catarman, San Roque, and Las Navas Northern Samar.

Price promotion or discount

Based on the result of the study the 73 respondents, or 100% of the respondents reported experiencing a price promotion or discount. This indicates that all respondents in the survey participated in a price promotion or discount.

Challenges Related to Ginger Distribution

Table 28 presents the challenges related to ginger distribution. Limited access to market had the most significant hurdle, with 42.46% or 31. Then, high transportation costs with 30.14% or 22, while a limited buyer base impacted with 16.44% or 12. A lack of storage facilities was the least challenge, affecting only 10.96% or eight (8). These finding highlighted the disproportionate impact of market access limitations on ginger distribution, suggesting that improvements in market reach and infrastructure would be crucial for enhancing the efficiency and profitability of the ginger trade.

Table 28. Challenges Related to Ginger Distribution

Challenges	Frequency	Percentage (%)
Limited access to market	31	42.46
High transportation cost	22	30.14
Limited buyer base	12	16.44
Lack of storage facilities	8	10.96
Total	73	100.00

Level of Stocks of Ginger (as per day and weeks)

The data show that ginger stocks lasted for varying durations. A significant portion (41.03%) lasted between one (1) and two (2) days, while a substantial number (38.47%) lasted between two (2) and three (3) days. A smaller percentage (10.26%) lasted only one (1) day, and a negligible amount lasted between four (4) and seven (7) days. The data indicate a relatively short shelf life for ginger, with the majority lasting less than three(3) days. The most common duration was between one (1) and two (2) days (41.03%), highlighting the perishable nature of the product. A smaller but still notable percentage (38.47%) lasted two (2) to three (3) days. Very few stocks lasted longer than three (3) days, suggesting that appropriate storage and quick consumption are crucial to prevent spoilage.

The study also revealed that ginger stocks, when measured in weeks. A of majority (35.62%) lasted between one (1) and two (2) weeks, followed by a considerable portion (32.88%) lasting only one (1) week. A smaller percentage (17.80%) lasted between two (2) and three (3) weeks, while a very small percentage lasted between three (3) and five (5) weeks. No stocks lasted for more than five (5) weeks. When considering the shelf life in weeks, the data show a slightly longer average duration. Most ginger stocks (35.62%) lasted between one (1) and two (2) weeks, demonstrating a somewhat extended shelf life compared to the daily breakdown. A significant portion (32.88%) lasted only one (1) week, indicating that even when considering longer timeframes, a substantial proportion of ginger still had a relatively short shelf life. The absence of stocks lasting longer than five (5) weeks reinforced the perishable nature of ginger.

Table 29. levels of Stocks of Ginger (as per days\weeks)

Days	Frequency	Percentage (%)
1 day	4	10.26
1–2 days	16	41.03
2–3 days	15	38.47
4–5 days	2	5.13
6–7 days	2	5.13
Total	39	100.00

Restocking of Ginger

Table 30 presents the data on the ginger restocks, categorized by restocking intervals. The most frequent restocking interval was weekly, accounting for 50 out of 82 total restocks (60.97%). This indicates a significant reliance on weekly replenishment for maintaining ginger stock. Bi-weekly restocking represented a considerable portion at 21.95% (18 restocks), while monthly restocking was the least frequent at 9.76% (8 restocks). Daily restocking was also relatively infrequent, at only 7.32% (6 restocks)

The data show a predominantly weekly restocking pattern for ginger, highlighting the importance of this schedule for maintaining adequate supply. The relatively small percentages for daily and monthly restocking suggest these intervals are less crucial to the overall ginger supply chain. The distribution of restocking shows that inventory management strategies, potentially optimizing stock levels and reducing waste by aligning with the observed patterns.

Table 30. Restocks of Ginger

Time	Frequency	Percentage (%)
Daily	6	7.32
Weekly	50	60.97
Bi-Weekly	18	21.95
Monthly	8	9.76
Total	82	100.00

*Multiple Responses

Buyers

Table 31 shows the ginger buyers. Individual buyers constituted the largest segment, accounting for 41.87% (67 out of 160 total buyers) of the market. Retailers followed, representing 30.63% (49 buyers), while restaurants and canteens held smaller shares at 15.63% (25 buyers) and 11.87% (19 buyers), respectively. The data indicate a significant reliance on individual buyers for ginger sales, suggesting a substantial portion of market demand originated from direct consumer purchases.

Table 31. Buyers

Buyer	Frequency	Percentage (%)	Rank
Individual buyers	67	41.87	1
Retailers	49	30.63	2
Restaurant	25	15.63	3

Buyer	Frequency	Percentage (%)	Rank
Canteen	19	11.87	4
Total	160	100.00	

*Multiple Responses

Current Demand for Ginger in the Market

The study of 73 respondents revealed that moderate demand for ginger was most prevalent, representing 48.62% of responses (35 respondents). Low demand was reported by 31.94% (23 respondents), while high demand was observed in 20.55% of cases (15 respondents). No respondents reported zero demand for ginger.

Table 32. Current demand for ginger in the market

Current Demand	Frequency	Percentage (%)
High	15	20.55
Moderate	35	47.95
Low	23	31.50
Total	73	100.00

Amount of Ginger Procured in Weekly/Monthly/Daily

Table 33 shows the ginger procured daily, weekly, and monthly. For daily procurement, majority was between 2-4 kg, representing 52.94%. Four to six (4-6) kg constituted the 19.12%, 6-8 kg made up 17.65%, and 8-10 kg accounted for 10.29%. Weekly procurements showed a different pattern, with the majority (84.57%) falling within the 10-20 kg range. Smaller quantities were procured less frequently; 12.67% were between 20-30 kg, and only a small fraction (2.82%) exceeded 40 kg (2 procurements). Monthly procurements were dominated by the 50-60 kg range, comprising 63.49% (40 out of 63 total monthly procurements). Sixty to seventy (60-70) kg or 25.39% (16 procurements), 70 kg or more were infrequent, totaling less than 10% collectively. The data reveal distinct procurement patterns across different time intervals, indicating varying needs and scales of operation depending on the frequency of ginger acquisition.

Table 33. Amount of ginger procured in weekly/monthly/daily

Estimated Amount (kg)	Frequency	Percentage (%)
2-4 kg	36	52.94
4-6 kg	13	19.12
6-8 kg	12	17.65
8-10 kg	7	10.29
Total	68	100.00

Estimated Amount (kg)	Frequency	Percentage (%)
10-20 kg	60	84.51
20-30 kg	9	12.68
30-40 kg	0	0.00
40-50 kg	2	2.82
Total	71	100.00

Estimated Amount (kg)	Frequency	Percentage (%)
50-60 kg	40	63.49
60-70 kg	16	25.40
70-80 kg	3	4.76

Estimated Amount (kg)	Frequency	Percentage (%)
80–90 kg	1	1.59
90–100 kg	3	4.76
Total	63	100.00

Changes in Consumer Demand for Ginger in the Last Six (6) Months

The table shows that over the past six (6) months, 94.52% of the consumers reported an increase in their demand for ginger, while only 5.48% of them reported no change. This indicates a strong positive trend in ginger consumption.

Table 34. Changes in consumer demand of ginger in the last 6 months

Consumer Demand	Frequency	Percentage (%)
Yes	69	94.52
No	4	5.48
Total	73	100.00

Size of Ginger

Table 35 shows the size of the ginger. Medium-sized ginger overwhelmingly dominated, comprising 74.71% (56 out of 87) of the total. Small size of ginger for 17.24%, while large ginger made up a small 8.05%. No extra-large ginger was observed by the respondents. The data indicate a strong preference for medium-sized ginger in the market.

Table 35. Size of ginger

Size	Frequency	Percentage (%)
Small	15	19.23
Medium	56	71.79
Large	7	8.98
Total	78	100.00

*Multiple Responses

Month of Ginger Highly Demanded

The data present the month of ginger highly demanded, with 30 or 22.39, March was the month with the highest demanded of ginger June and July had the lowest demand of ginger. The total number of events across all months was 134. The slight discrepancy in the total percentage (100.04% instead of 100%) was likely due to rounding errors in the individual percentage calculations.

Table 36. Month of ginger highly demanded

Months	Frequency	Percentage (%)
January	8	5.97
February	14	10.45
March	30	22.39
April	4	2.99
May	2	1.49
June	1	0.75
July	1	0.75
August	2	1.49
September	8	5.97
October	6	4.48
November	11	8.21
December	21	15.68

Months	Frequency	Percentage (%)
Total	134	100.00

*Multiple Responses

Lower Demand of Ginger

Table 37 shows the monthly ginger demand based on responses from 73 retailers across four (4) municipalities. In this data, lower numbers mean higher demand. The highest demand was recorded in May, June, July, and August, with only one (1) respondent in each month showing the interest in ginger. In contrast, December had the lowest demand, with 25 respondents not interested in ginger. This drop may be due to natural disasters, poor transportation, and limited market access. Moderate demand was seen in February (16), March (19), and November (10). Overall, the data show that ginger demand was seasonal.

Table 37. Lower demand of ginger

Months	Frequency	Percentage (%)
January	11	10.89
February	16	15.84
March	19	18.82
April	4	3.96
May	1	0.99
June	2	1.98
September	6	5.94
October	7	6.93
November	10	9.90
December	25	24.75
Total	101	100.00

*Multiple Responses

Availability of Ginger During Peak Months

The table shows that the data on the availability of ginger during peak months revealed that a majority of respondents (59.55%) experienced only a limited supply, indicating that ginger is sometimes limited supply during these periods. Moreover, 28 respondents (31.46%) reported that ginger was always sufficiently available, suggesting that some sources or markets manage to maintain steady supply during harvest time; (7.87%) often finds ginger out of stock; and an even smaller percentage (1.12%) falls into another, suggesting that depends on the weather conditions and suppliers' availability.

Table 38. Availability of ginger during peak months

Availability of Ginger	Frequency	Percentage (%)
Always sufficient	28	31.46
Sometimes limited supply	53	59.55
Often out of stock	7	7.87
Others	1	1.12
Total	89	100.00

*Multiple Responses

Typical Price Ginger During Different Season

The data show the price range of a product (likely agricultural produce, given the "per kg" unit) during the wet and dry seasons in a specific location. The most striking observation was the significant difference in price distribution between the two (2) seasons. Wet season (June - November), a majority (53.42%) of prices fall within the PHP 160-170 per kg range. Prices were generally higher, with a smaller proportion of lower-priced items (15.07% at PHP 100-150 per kg) compared to the dry season (December - May), a majority (73.97%) of prices were concentrated in the PHP 150-170 per kg range. The lowest price range (PHP 50-100 per kg) accounted for a smaller

percentage (13.70%) compared to the wet season's lowest range. This indicates lower prices overall during the dry season.

The total number of data pointed was the same for both seasons (73). There is a clear seasonal impact on pricing. Prices are significantly higher during the wet season, likely due to factors such as reduced supply or increased demand. The dry season shows a much more concentrated price range, suggesting more stable market conditions.

Table 39. Typical price of ginger during different season

Price per kg (PHP)	Frequency	Percentage (%)
PHP 100–150 per kg	11	15.07
PHP 160–170 per kg	39	53.42
PHP 180–200 per kg	21	28.77
PHP 220–260 per kg	2	2.74
Total	73	100.00

Price per kg (PHP)	Frequency	Percentage (%)
PHP 50–100 per kg	10	13.70
PHP 150–170 per kg	54	73.97
PHP 180–200 per kg	9	12.33
Total	73	100.00

Distribution Channels

Table 40 illustrates the main channels used for selling ginger. The vast majority (80.52%, 62 out of 77 responses) of ginger sales occurred through retail markets, directly to consumers (e.g., via local stores). Wholesale markets accounted for a smaller portion (19.48%, 15 responses), while no ginger was sold through export channels in this survey. This data indicate a strong reliance on direct consumer sales in the retail market as the primary sales channel for ginger.

Table 40. Distribution channels

Main Channels	Frequency	Percentage (%)
Wholesale markets	15	19.48
Retail markets, direct to consumers (e.g., via local stores)	62	80.52
Total	77	100.00

*Multiple Responses

Strategies During Price Fluctuations

Table 41 shows the strategies used to attract customers despite price fluctuations. Offering discounts for bulk purchases was the most common strategy, used by 46.92% (61 out of 130 respondents); offering fresher produce was employed by 27.69% (36 respondents); and maintaining consistent pricing was used by 25.39% (33 respondents). These findings suggest that offering value through bulk discounts was the most popular approach to mitigating the effects of price volatility on customer purchasing decisions.

Table 41. Strategies during price fluctuation

Strategies	Frequency	Percentage (%)
Discounts for bulk purchases	61	46.92
Offering fresher produce	36	27.69
Maintaining consistent pricing	33	25.39
Total	130	100.00

*Multiple Responses

Profit from Selling Ginger

The table shows the profit distribution from selling ginger. The majority, 87.67% or 64, of sales resulted in a profit margin between 5% and 10%. A smaller percentage of sales, 8.22% or six (6) yielded profits between 15% and 20%. Profits in the 30-40% range were minimal with 1.37% or one (1), as were profits in the 50-60% range with 2.74% or two (2). The data was based on a total of 73 sales.

Table 42. Profit

Profit (%)	Frequency	Percentage (%)
5–10%	64	87.67
15–20%	6	8.22
30–40%	1	1.37
50–60%	2	2.74
Total	73	100.00

Mode of Selling

Table 43 shows that ginger was sold by two (2) main methods: by kilo and by pieces. Selling ginger by kilo was slightly more prevalent, accounting for 52.90% (73 out of 138 total sales) of the total sales. Selling by pieces made up the remaining 47.10% (65 sales). This suggests that while selling by the kilo was the dominant method, a considerable portion of sales also involved selling ginger in individual pieces.

Table 43. Mode of selling

Mode of Selling	Frequency	Percentage (%)
By kilo	73	52.90
By pieces	65	47.10
Total	138	100.00

*Multiple Responses

Mode of Payment

The data show that all ginger transactions, all or 100%, of the responses were conducted using cash. No credit transactions or product exchanges were reported in the survey data. This indicates a completely cash-based system for ginger sales.

Problems Encountered

An analysis of the 142 reported responses on the problems identified, the study revealed that price fluctuations were the most significant issue, accounting for 54 instances or 38.03% of the total. This was substantially higher than the next most common problems demand-supply imbalances and supply chain issues, each reported 20 times (14.04% each). Quality discrepancies presented a notable challenge, reported in 26 instances (18.31%), indicating inconsistencies in product or service quality. Market competition, while a factor, was less frequently cited, appearing in only 10 reports (7.04%). Limited coordination among various market participants also emerged as a concern, mentioned in 24 instances (16.9%). In contrast, problems related to lack of infrastructure, policy and regulation inadequacies, and external factors were not frequently reported, each appearing in zero instances. These findings suggest that addressing price volatility, supply chain resilience, and quality control mechanisms should be prioritized to improve overall market stability and performance.

Table 45. Problems encountered

Problems	Frequency	Percentage (%)
Price fluctuations	54	38.03
Demand-supply imbalance	20	14.08
Quality discrepancies	26	18.31
Market competition	15	10.56
Limited coordination among markets	4	2.83
Supply chain issues	20	14.08
Lack of infrastructure	3	2.11

Problems	Frequency	Percentage (%)
Total	142	100.00

*Multiple Response

Common Challenges in Selling Ginger

The data presented shows the frequency and percentage of common challenges encountered when selling ginger. High purchase cost was the most frequently reported challenge, accounting for 42 instances (23.33% of the total). Seasonal demand changes and lack of storage facilities were also significant challenges, each representing 20.56% of the reported issues (37 instances each). Supply shortages were reported in 24 instances (13.33%), while price competition with other vendors was a less frequent concern, representing only 3.33% of the total (6 instances). In total, 180 challenges were reported.

Table 46. Common challenges in selling ginger

Challenges	Frequency	Percentage (%)
High purchase cost	42	23.33
Seasonal demand changes	37	20.56
Lack of storage facilities	37	20.56
Supply shortage	24	13.33
Poor quality of ginger from suppliers	34	18.89
Price competition with other vendors	6	3.33
Total	180	100.00

*Multiple Responses

Support

The survey results revealed the primary areas of support considered vital by stakeholders involved in the ginger business. The highest number of respondents (57) emphasized the importance of improved market access, suggesting that direct connections with buyers and broader market reach are crucial for business growth. This was followed by 33 respondents highlighted the need for reliable market information, such as pricing trends and demand Forecasts, another 21 participants pointed to the importance of training and the implementation of enhanced agricultural practices. While transportation-related issues were identified by only 17 respondents, indicating it is a moderate concern. Financial assistance was mentioned by just eight (8) respondents, suggesting that although funding is helpful, it was not their top priority compared to selling their product and improving their farming skill

Table 47. Support

Support	Frequency	Percentage (%)
Easy access to market	57	41.22
Market information	33	24.26
Better agricultural practices/trainings	21	15.44
Improved transportation facilities	17	12.50
Financial assistance	8	5.88
Total	136	100.00

*Multiple Responses

CONCLUSIONS

Based on the result of the study, the following conclusions were drawn: A significant price variation among the municipalities. This difference were largely driven by variables such as transportation cost, high purchase cost, seasonal demand changes and quality discrepancies.

Among the four (4) municipalities, San Roque consistently recorded the highest average market price due to newly arrived tend to be more expensive because of its novelty and initial demand of the product. As well as showed the lowest average price as the stock ages and sales decline, prices leading to customers to seek other retailers. This situation fosters competition among sellers. In contrast, municipalities of Bobon, Catarman, and Las Navas showed relatively stable, rarely price adjustment, and depends on the suppliers procured.

This study highlighted how differences in ginger prices across municipalities had direct impact on retailers, buyers, and customers. For retailers and buyers, understanding where prices are more stable or competitive can guide sourcing decisions and improve profit margins. For customers, awareness of market trends can help in making informed purchasing choices. Promoting transparency in pricing and supporting local market systems can contribute to fairer trade and more consistent access to quality ginger at reasonable prices.

RECOMMENDATIONS

1. Investing in better road infrastructure and logistics will reduce high transportation costs, stabilizing ginger prices.
2. Establish accessible and affordable storage facilities in each municipality to minimize ginger spoilage, particularly during peak production.
3. Strengthen market access by connecting local retailers to broader markets (cooperatives, institutional buyers) and enhancing market information systems to provide timely data on prices, demand, and supply.
4. Offer training on quality and post-harvest handling, focusing on improved farming and post-harvest techniques. Promote fair pricing and competition to build customer trust.
5. Create retailers' associations or cooperatives form local ginger retailers' cooperatives to facilitate bulk buying, coordinated pricing, and knowledge-sharing, which can help members secure better profit margins.

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