



Factors Affecting the Pricing Movements of Copras in 3rd District of Quezon

Mark Christian G. Privado¹

Erika R. Clanza²

Loise Anne B Subido³

Michaela C. Ortega⁴

Crystal May Manas⁵

Kent B. Pitero⁶

^{1,2,3,4,5} *Agribusiness Management and Entrepreneurship Department Polytechnic University of the Philippines.*

Lopez, Quezon Campus, Philippines, 4316

Email: markchristianprivado@gmail.com

Abstract

This study investigates the factors affecting the pricing movements of copras in the 3rd District of Quezon. The finding sought to provide the information on what is the current situation of copra pricing and what strategies to address those factors. Data was gathered from 364 coconut farmers from the 12 municipalities of the 3rd District of Quezon, who responded using a descriptive survey design. Findings show that the majority of the livelihood of people in the 3rd District of Quezon is producing copras, where their income is from this production. However, challenges such as weather/climate, demand and supply, middlemen/traders, and action of the government make a huge impact on the pricing movement of copra. The recommendations for the pricing movements of copras are provided.

Keywords: Coconut, Copras, 3rd District of Quezon, Demand and Supply, Middlemen/Traders and Government support. Pricing movements, Weather/Climate.

1. Introduction

Considering its many applications, coconut is known as the "tree of life." Utilized for their water, milk, oil, and meat, coconuts are an essential and adaptable crop that is important to the financial systems and traditions of many tropical nations. Over 23.7 million metric tonnes in 1961 to 62.4 million metric tonnes in 2022, the production of coconuts has expanded rapidly. Improved coconut types, rising worldwide demand, and improvements in agricultural techniques are some of the reasons for this growth. Government assistance and the expansion of coconut farming regions in key producing nations have also been crucial. The coconut is used to produce oils, even the shells used for craft materials (Henrietta et al., 2022). One significant area of Philippine agriculture is the coconut cultivation industry. An estimated 2.5 million farmers are employed by the coconut sector, which spans 69 of the 82 provinces in the nation and has a total production area of 3.62 million hectares. Furthermore, in 2018, the Philippines produced 14.7 million nut terms, with over 347 million fruit-bearing trees. According to the Philippine Coconut Authority (2018), 0.835 million tons of coconuts were consumed domestically in 2015. In the Association of Southeast Asian Nations, the Philippines continues to be the second-largest producer of coconuts, accounting for about 40% of ASEAN's total production (FAOStat, 2018). The Philippines' CALABARZON, Zamboanga, Davao, and Northern Mindanao regions are major coconut growers. With 10% of the country's total production, Quezon province is one of the Philippines' leading growers of coconuts. The coconut cultivation sector contributes to more than 2,151 individuals in the province, including small-scale farmers, copra sellers, and retailers (Southeast Asian Regional Center for Graduate Study and Research Agriculture, 2023). These plantations yield copra (dried coconut kernel) used to extract coconut oil, which is a key export commodity. The industry supports millions of farmers and their families, offering them a source of income and sustenance. In the Philippines, coconut is one of the major pillars of the agriculture industry. The Philippine Statistics Authority said coconut products contributed 43% in the agro-based revenue of the country in 2017 with a total of US\$1.8 billion export value. Copra or dried coconut meat is the main product of coconut. It has high oil content, as much as 64%. Coconut oil, which is the most readily digested among all fats of general use in the entire world, furnishes about 9,500 calories of energy per kilo (Tacio, 2019). However, Coconut production is currently facing some issues such as weather or climate change, the demand of the coconut products and action of the government affecting the pricing movements which affect the profit of the small-scales farmers. The main objective of this study is to determine the factors affecting the pricing movements of Copras in the 3rd district of Quezon Province.

2. Materials and Methods

The research study will utilize a quantitative approach, specifically adopting a descriptive research design. The main objective of the study is to identify the factors affecting the pricing movements of copras in the 3rd District of Quezon. The Descriptive research is a methodological approach that seeks to depict the characteristics of a phenomenon or subject under investigation. Its primary significance lies in its ability to provide a comprehensive overview of a phenomenon, enabling researchers to gain a nuanced understanding of the variables at play. The study focuses on the copras production in the 3rd district of Quezon. Purposive sampling technique will be utilized ensuring an impartial outcome. The research involves 364 coconut farmers, chosen deliberately to offer diverse and valuable viewpoints. To conduct the research survey, research ethics clearance was requested from the University Research Center before the research survey was conducted. It was ensured that all the prepared questions given to respondents would not force them to answer that they had the right to accept or decline. We ensured that all records of the interviews and data gathered would be used for the study or other related educational purposes. The survey questions that the researchers had created were sent in for verification. Validators were chosen faculty members from PUP Lopez, Quezon. The reliability test was conducted using Cronbach's Alpha. The data gathering process began with the preparation of necessary documents and seeking approval from the relevant office. The researcher use statistical measure and tools in summarizing, presenting, analyzing and interpreting the data gathered utilizing frequency and percentage distribution, weighted average mean and point likert scale that also includes a verbal interpretation, equivalent and numerical aspects.

3. Results and Discussions

3.1. Demographic Profile of the Respondents

Table 1. Gender.

Gender		
Gender	Frequency	%
Male	239	65.66%
Female	125	34.34%
LGBTQIA+		

The data shows that 239 of the respondents are male, while the 125 are females. Males had a higher frequency than females. There were 65.66% male respondents while females got a total of 34.34%.

Table 2. Age.

Age		
18 below	6	1.65%
19 - 24	13	3.57%
25 - 34	26	7.14%
35 - 44	64	17.58%
45 - 54	100	27.48%
55 - 64	87	23.90%
65 above	68	18.68%

The majority of the respondents with 27.48% belong to the age group of 45 - 54 years, followed by 23.90% of respondents who are 55 - 64 years. The 18.68% respondents are in the age of 65 and above, followed by 17.58% respondents with an age of 35 - 44 years. Moreover 7.14% respondents are 25 - 34 years old, followed by 3.57% respondents to the age of 19 - 24 years, and only 1.65% respondents with an age of 18 below. As seen above, the ranges from 45 - 54 years old got the highest weighted mean followed by 55 - 64 years old, it is simply because the ages of 45 - 54 years old and above are commonly engaged in copra production since their childhood. This table indicates that the younger generations are not into Copra production.

Table 3. Experience in Farming.

Experience in Farming		
1 years below	3	0.82%
1 - 2 years	19	5.22%
3 - 5 years	65	17.86%
6 -10 years	97	26.65%
more than 10 years	180	49.45%

In terms of Experience in Copra Production, the majority of the respondents with 49.45% have more than 10 years of experience, followed by 26.65% of respondents with 6 - 10 years of experience. Moreover, 17.86% of respondents with 3 - 5 years of experience, followed by 5.22% of respondents with 1 - 2 years of experience and only 0.82% of respondents with 1 year below in Experience of copra production. The result showed that the coconut farmers are into copra production for more than 10 years, which means that it's their practices or work since childhood.

Table 4. Farm Size.

Farm Size		
1 hectare below	12	3.30%
1 - 2 hectares	197	54.12%
3 - 5 hectares	112	30.77%
5 hectares above	43	11.81%

The data shows in terms of Farm size, the majority of the respondents has 1 - 2 hectares with 54.12%, followed by the 3 - 5 hectares with the 30.77% of respondents. Moreover the 11.81% of respondents have above 5 hectares of land, while the lowest percent has 3.30% of respondents with below 1 hectare. The result shows that the majority of the coconut farmers have 1 - 2 hectares of coconut plantation in their respective area.

Table 5. Yearly Income.

Yearly Income		
50,000 below	253	69.51%
50,001 - 70,000	60	16.48%
70,001 - 90,000	39	10.7%
90,001 - 100,000	4	1.10%
100,000 above	8	2.20%

This table shows that the majority of the yearly income of coconut farmers is below 50,000 with 69.51% of respondents, followed by 16.48% of the respondents with a 50,001 - 70,000 yearly income. Moreover, 10.7% of the respondents with 70,001 - 90,000 yearly income, while 2.20% of the respondents have yearly income of above 100,000 and only 1.10% respondents have 90,001 - 100,000 yearly income. It shows that in their copras production that can earn a below the national poverty threshold of a family.

Table 6. Tenureship.

Tenureship		
Tenant	203	55.77%
Owner	161	44.23%

It shows that the majority of the coconut farmers are Tenant with 66.77% respondents, while 44.23% of the respondents are Owners. It means that the majority of coconut farmers cultivate a coconut farm where they're tenants with personal agreements to the owner of the farm they perform copra.

Table 7. Channel of Distribution.

Channel of Distribution		
Producers - Local Buyer - Oil Mill Plant	344	94.51%
Producers - Local Buyer - Registered Buyer - Oil Mill Plant	20	5.49%

This table shows that the Channel of Distribution of coconut farmers with the majority of them used to distribute their Copra thru Producers-Local Traders-Manufacturer with 94.51 % of the respondents, while the 5.49% of the respondents are Producers-Wholesalers-Retailer-Manufacturer as their Channel of Distribution.

Table 8. Farm Location.

Farm Location		
Agdangan	35	9.62%
Buenavista	41	11.26%
Catanauan	33	9.06%
General Luna	38	10.44%
Macalelon	19	5.22%
Mulanay	36	9.89%
Padre Burgos	24	6.59%
Pitogo	61	16.76%
San Andres	18	4.95%
San Francisco	21	5.77%
San Narciso	19	5.22%
Unisan	19	5.22%

In terms of Farm Location it was found that 16.67%of the respondents farm located at Pitogo, 11.26% is located in Buenavista, 10.44% is located in General Luna, 9.89% is located in Mulanay, 9.62 is located in Agdangan, 9.06 is located in Catanauan, 6.59% is located in Padre Burgos, 5.77% is located in San Francisco, 5.22% is located in Macalelon, San Narciso, Unisan and only 4.95% is located in San Andres. Selecting the numbers of the respondents depends on the availability or willingness of the respondents in every municipality.

Table 9. Weather/Climate Factor which affect the Pricing Movements of Copra

Weather/Climate	Weighted Mean	Verbal Description
1. I often struggle with severe weather that affects copra production.	4.14	Often
2. Prolonged rains have an effect on the quality of my copra.	4.07	Often
3. Whenever drought occurs, it completely affects the production of my copra.	4.09	Often
4. There is a chance that bad weather affects my delivery of my copra to the buyer.	3.60	Often
5. Whenever there is bad weather, I store my copra in a safe and tidy place.	3.24	Sometimes
6. No matter what the weather, I always incur additional operating costs whenever I bring copra to the buyer.	3.47	Sometimes

In terms of weather/climatic factors, "I often struggle with severe weather that affects copra production" got the highest weighted mean of 4.14 that corresponds with the verbal interpretation "often" it is followed by "Whenever drought occurs, it completely affects the production of my copra" with 4.09 weighted mean that means "often". The table also indicates which parameters got the lowest weighted mean of 3.47 with verbal interpretation

of “sometimes” which is “No matter what the weather, I always incur additional operating costs whenever I bring copra to the buyer” and the lowest above all with 3.24 weighted mean with verbal interpretation of “sometimes” is the “Whenever there is bad weather, I store my copra in a safe and tidy place”.

Table 10. Demand Factors Affecting the Pricing Movements of Copra

Demand	Weighted Mean	Verbal Description
1. Buyers/traders hesitate to buy my copra when demand is low.	1.21	Never
2. There was a time when the supply of my copra was insufficient due to the increase in demand.	3.42	Sometimes
3. The price of my copra goes down when there is no demand from traders or buyers.	3.19	Sometimes
4. The increasing demand for coconut alternatives is affecting my copra income.	3.07	Sometimes
5. During the coconut harvest, the demand or interest of buyers/businessmen for my copra increases.	3.12	Sometimes

In terms of demand factors, “There was a time when the supply of my copra was insufficient due to the increase in demand” got the highest weighted mean of 3.42 that corresponds with the verbal interpretation “sometimes” it is followed by “The price of my copra goes down when there is no demand from traders or buyers” with 3.19 weighted mean that means “sometimes”. The table also indicates which parameters got the lowest weighted mean of 3.07 with verbal interpretation of “sometimes” which is “The increasing demand for coconut alternatives is affecting my copra income” and the lowest above all with 1.21 weighted mean with verbal interpretation of “never” is the “Buyers/traders hesitate to buy my copra when demand is low”.

Table 11. Supply Factors Affecting the Pricing Movements of Copra

Supply	Weighted Mean	Verbal Description
1. The availability of a sufficient supply of my copra varies depending on the season of coconut harvesting	3.60	Often
2. The supply of coconuts for my copra production has been affected by pests and diseases.	3.27	Sometimes
3. The production of my copra supply has been affected by the lack of workers.	3.40	Sometimes
4. I am able to harvest coconuts for copra production throughout the year continuously.	3.00	Sometimes
5. Due to various weather conditions, the supply of my copra is affected/stopped.	3.41	Sometimes

In terms of Supply factors, “The availability of a sufficient supply of my copra varies depending on the season of coconut harvesting” got the highest weighted mean of 3.60 that corresponds with the verbal interpretation “often” it is followed by “Due to various weather conditions, the supply of my copra is affected/stopped” with 3.41 weighted mean that means “sometimes”. The table also indicates which parameters got the lowest weighted mean of 3.27 with verbal interpretation of “sometimes” which is “The supply of coconuts for my copra production has been affected by pests and diseases” and the lowest above all with 3.00 weighted mean with verbal interpretation of “sometimes” is the “I am able to harvest coconuts for copra production throughout the year continuously”.

Table 12. Middlemen/Traders Factors Affecting the Pricing Movements of Copra

Middlemen/Traders	Weighted Mean	Verbal Description
1. The middlemen and traders give the price of my copra.	4.65	Always
2. There is a chance that traders and middlemen are not honest about the change in the price of copra in the market.	3.36	Sometimes
3. I sell most of my copra through middlemen.	4.18	Often
4. Traders deduct my transportation cost from my copra earnings.	3.59	Often
5. The buyers or traders reduce the price of my copra whenever its quality is not good.	3.56	Often
6. I take my copra to the traders from whom I have debt.	4.21	Often

In terms of Middlemen/Local Traders, “The middlemen and traders give the price of my copra” got the highest weighted mean of 4.65 that corresponds with the verbal interpretation “Always” it is followed by “I take my copra to the traders from whom I have debt” with 4.21 weighted mean that means “sometimes”. The table also indicates which parameters got the lowest weighted mean of 3.56 with verbal interpretation of “often” which is “The buyers or traders reduce the price of my copra whenever its quality is not good” and the lowest above all with 3.36 weighted mean with verbal interpretation of “sometimes” is the “There is a chance that traders and middlemen are not honest about the change in the price of copra in the market”.

Table 13. Influence of Government Action on the Pricing Movement of Copra

Government Action	Weighted Mean	Verbal Description
1. As a coconut farmer, the government gives me support like fertilizer for my coconut trees.	1.56	Rarely
2. In my opinion, the government is taking action to improve the pricing of copra.	1.81	Rarely
3. I get financial help whenever the weather is bad and my coconuts are directly affected.	1.62	Rarely
4. The government provides information regarding the Philippine Coconut Authority program, such as the National Coconut Farmers Registry System (NCFRS).	1.61	Rarely
5. The government provides projects like the Farm-To-Market Road to support the copra industry in our municipality.	1.93	Rarely

In terms of Government Support, “The government provides projects like the Farm-To-Market Road to support the copra industry in our municipality.” got the highest weighted mean of 1.93 that corresponds with the verbal interpretation “rarely” it is followed by “In my opinion, the government is taking action to improve the pricing of copra” with 1.81 weighted mean that means “rarely”. The table also indicates which parameters got the lowest weighted mean of 1.461 with verbal interpretation of “rarely” which is “The government provides information regarding the Philippine Coconut Authority program, such as the National Coconut Farmers Registry System (NCFRS)” and the lowest above all with 1.56 weighted mean with verbal interpretation of “rarely” is the “As a coconut farmer, the government gives me support like fertilizer for my coconut trees”.

Table 14. Current Situation of Copra Production in the 3rd District of Quezon.

	Weighted Mean	Verbal Description
1. I have difficulty in my production process; whenever the price of copra is low, there are pests, or the weather is bad.	4.04	Often
2. I receive adequate assistance for my copra production from government agencies, cooperatives, or private groups.	2	Rarely
3. The costs of labor or process, transportation, and production materials cause me a financial deficiency.	3.26	Sometimes
4. When it comes to production, I can meet the current market demand for copra.	2.68	Sometimes
5. In my opinion, I can support my family and need to use the money I earn from copra production.	3.22	Sometimes
6. I think that in the years to come, copra production will continue to be profitable.	3.79	Often

In terms of Current situation of copras in the 3rd District of Quezon, “I have difficulty in my production process; whenever the price of copra is low, there are pests, or the weather is bad” got the highest weighted mean of 4.604 that corresponds with the verbal interpretation “often” it is followed by “I think that in the years to come, copra production will continue to be profitable” with 3.79 weighted mean that means “often”. The table also indicates which parameters got the lowest weighted mean of 3.56 with verbal interpretation of “sometimes” which is “When it comes to production, I can meet the current market demand for copra” and the lowest above all with 2.68 weighted mean with verbal interpretation of “rarely” is the “I receive adequate assistance for my copra production from government agencies, cooperatives, or private groups”.

Table 15. Strategies/Solutions that can be Implemented for the Stable Pricing of Copra

Statement	Weighted Mean	Verbal Description
1. I prefer that me and my family work in copra production to reduce labor costs.	4.35	Agree
2. I bring copra to nearby traders to reduce our transportation cost.	4.38	Agree
3. I bring copra to other local traders in our municipality who have high prices.	4.40	Agree
4. I participate in public forums or campaigns for coconut farmers regarding promoting laws that will help the coconut sector.	4.40	Agree
5. I agree with the implemented government programs for coconut farmers.	4.47	Agree
6. I want to have cooperatives for coconut farmers to get a good price for our copra.	4.47	Agree
7. I considered registering with the Philippine Coconut Authority program, similar to the National Coconut Farmers Registry System (NCFRS).	4.52	Strongly Agree

In terms of Strategies for the pricing movements of Copras, I considered registering with the Philippine Coconut Authority program, similar to the National Coconut Farmers Registry System (NCFRS), got the highest weighted mean of 4.52 that corresponds with the verbal interpretation “Strongly Agree” it is followed by I agree with the implemented government programs for coconut farmers” and “I want to have cooperatives for coconut farmers to get a good price for our copra” while the lowest above all with 4.35 weighted mean with verbal interpretation of “agree” is the I prefer that me and my family work in copra production to reduce labor costs.

4. Conclusions and Recommendations

Most of the respondents are male (65.66%) and aged between 45 -54 with (27.48%) Also, majority of the respondents, 49.45%, were coconut farmers or experienced in farming which is more than 10 years. Most of the farmers have 1 -2 hectares with (54.12%) of respondents. Majority of the yearly Income is 50,000 below with 69.51% of respondents. The farmers are mostly Tenants with 55.77%. Most of their channel of distribution is

Producers - Local Traders - Manufacturing with 94.51% of respondents. In the whole 3rd district of Quezon most of the Respondents are from Pitogo with 16.76%. Generally, weather/climate (drought and severe rain); middlemen who dictate the price of copra and; lack of government support have a huge impact in the production and pricing of copra. While demand and supply factors do not have a huge impact in the production and pricing movements of copra. Generally, copra production in the 3rd district of Quezon, is facing difficulty in production due to the low price and various factors. They perceived that to attain stable pricing, the first move and strategy that they will do is to register to Philippine Coconut Authority (PCA) and after all other strategies will follow.

Innovation of the coconut by product is a great investment of the farmers, adding additional values and it becomes their additional income. The coconut farmers can create a cooperative which can support and empower the coconut farming industry, and lessen the numbers of the middlemen. Livelihood income programs for the farmers, this will provide financial support, training, diversify income sources and improve their economic well-being. The coconut farmers can participate in every program of the government where the focus is about coconut production improvement. Registering in the program of Philippine Coconut Authority (PCA) which is National Coconut Farmers Registry System (NCFRS), where it can increase the profitability of the farmers. For the future generations they should be encouraged to invest in the coconut farming industry to maintain the supply and value of the coconut industry in Quezon Province. Promote Coconut enterprises diversification to improve coconut farmers livelihood. For future researchers, it is recommended that they conduct similar studies to know the other factors which affect the pricing movements of copras and also the income of the farmers. For the future generations they should encourage to invest in coconut farming industry to maintain the supply and value of coconut industry in Quezon Province. For future researchers, it is recommended that they conduct similar studies to know the other factors which affect the pricing movements of copras and also the income of the farmers.

References

- Henrietta, H. M., Kalaiyarasi, K., & Raj, A. (2022). Coconut Tree (*Cocos nucifera*) Products: A Review of Global Cultivation and its Benefits. *Journal of Sustainability and Environmental Management*, 1, 257-264. DOI: 10.3126/josem.v1i2.45377
- Philippine Coconut Authority (2018). Coconut Industry Strategic Science and Technology Program. No DOI available, as it is a webpage link. Available at: PCAARRD
- FAOStat (2018). Coconut Industry Strategic Science and Technology Program. No DOI available, as it is a webpage link. Available at: PCAARRD
- Southeast Asian Regional Center for Graduate Study and Research in Agriculture (2023). Development of the Coconut Industry Growth Areas in the Province of Quezon. No DOI available, as it is a webpage link. Available at: SEARCA
- Tancio, Henrylito D. (2019). COCONUT: PRIME EXPORT OF FILIPINO FARMERS. No DOI available, as it is a webpage link. Available at: Edge Davao