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## Egg Marketing at Veal Yun Market, Svay Rieng Province, Cambodia

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**Abstract:** *Eggs are a basic food item that helps maintain the health of the human body by providing vital vitamins, minerals, and other nutrients. Cambodia has produced eggs at an average annual growth of 2.24%. This study aims to study the demand and supply of eggs in Veal Yun market, and to understand the marketing chain of chicken and duck egg markets. This study is conducted at Veal Yun market, Svay Rieng town, Svay Rieng province by selecting all stalls which sell chicken eggs and duck eggs. The primary and secondary data are collected by using questionnaire, and all data are analysed in Ms. Excel. The result found that the longest period of selling egg of sellers are 10 years old, and an average of about 2.5 years. Purchasing an egg cost at least 450 Riel each egg, with an average cost of 496 Riel per egg and a maximum cost of around 550 riel per egg. The seller sold on average 15,000 eggs/month, while the quantity of eggs they buy-in on average comes to over 22,000 eggs/month. The price of eggs retail and wholesale in minimum, average, and maximum per egg is non-significant different from 500-550 Riel. In conclusion, the research result suggests a dynamic relationship between egg supply and demand in the market. As expected, a seller's sales quantity is likely influenced by their experience and customer base, along with the pricing strategy.*

**Keywords:** *Egg, Marketing, Supply, Demand, Price, Food.*

### 1. INTRODUCTION

Eggs are a basic food item that helps maintain the health of the human body by providing vital vitamins, minerals, and other nutrients. Eggs are a staple food that is readily available for all three meals in both Europe and Asia. For those with diabetes, eggs are a fantastic option, according to the American Diabetes Association. From 2022 to 2022, 87 million tons of eggs will be produced globally. By the year 2022, the global egg output will have risen by almost 100% since 1990. According to Shahbandeh (2022), Indonesia will produce 132.04 billion eggs, whereas China will produce 583.96 billion, making it the world's greatest producer. Asia

produced 8.8% of the world's eggs in 2020, and the increase in egg production from 2019 to 2020 contributed a noteworthy 23.4% to the worldwide expansion in the egg industry (Asian Agribiz Technical Team, 2022). With 22 million eggs, CP Group in Thailand will be the biggest egg producer in 2022. With 20.6 million eggs produced, Beijing Deqingyuan Agricultural Technology Company Co. Ltd. is the second Chinese company to produce more than Thailand (Mark, 2022). The number of eggs produced in Cambodia in 2022 will be 22,830 tons. From 7,950 tons in 1973 to 22,830 tons in 2022, Cambodia produced more eggs than ever before— an average annual growth of 2.24%.

The need for food grows daily because of ongoing economic expansion, particularly the global population increase. Everyday food is different and is chosen according to needs and interests; examples include whole grains, eggs, meat, fish, and veggies. This study of the egg markets is significantly conducted by the below objectives:

1. to study the demand and supply of eggs in Veal Yun market, and
2. To understand the marketing chain of chicken and duck egg markets.

## **2. LITERATURE REVIEW**

### **2.1 Physical Characteristics of Eggs**

Chicken eggs or duck eggs are divided into three main parts:

1. the egg's shell
2. the albumen or white
3. the yolk

And there are some other important characteristics such as the mammillary layer, spongy layer, pores, cuticle, air cell, inner shell, outer shell, membrane, chalaza, chalaziferous layer, germinal disc and latebra (Froning & Singh, 2024).

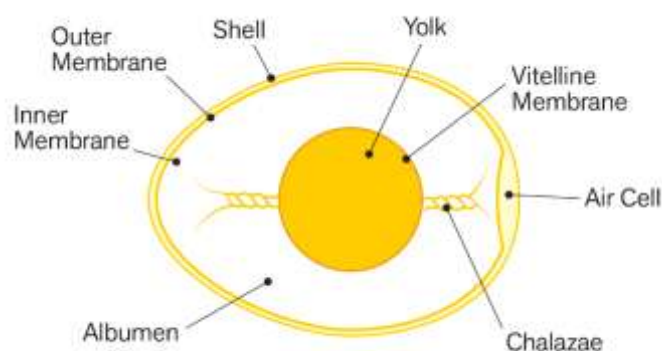


Fig. 1. Egg physical characteristics

### **2.2 Importance of Eggs**

In a January 18, 2024, article titled "*Health Benefits of Eggs*," Parkview Health claims that eggs are more than just a tasty side dish for meals and snacks. They are nourishing foods in addition to being a daily source of essential nutrients. Along with being high in fat and protein,



eggs are also a good source of several micronutrients, including vitamins D, B, A, and E (Parkview Health, 2024). According to case studies on frequent egg intake cited on the same page, most people who regularly consume eggs either do not experience elevated blood cholesterol levels or experience minimal elevation. In addition to containing 6.3 grams of protein, each egg has nine essential amino acids that support muscle health, growth, and repair. The article "8 Great Nutrients in Eggs Help Strengthen the Body's Health," which details the advantages of eating up to 8 eggs, was published in the Kampuchea Thmey newspaper on Thursday, May 19, 2022, are as follows:

1. A number of vital vitamins and minerals can be found in eggs. The daily requirements for vitamin D (82%), vitamin B-9 (50%), vitamin B2 (25%), and selenium (40%) can all be met by eating two eggs on average. It also includes healthy amounts of iron, iodine, phosphorus, and B vitamins (A, B, C, and B12), which are all vital components that support a balanced diet and foster good health.
2. Protein is found in eggs. It is well known that eggs are a rich source of high-quality proteins that aid in the healing of damaged muscles and tissues. An egg typically has 6.3 grams of protein in it. The nine essential amino acids and the wonderful properties of egg protein help muscle upkeep, growth, and healing.
3. Eggs are a good way to raise cholesterol. Eggs have no effect whatsoever on the risk of heart disease because they effectively elevate cholesterol levels. The body is susceptible to heart disease if it is given high or excessive cholesterol levels. As a matter of fact, fried foods and other high-saturated-fat foods can contribute to elevated cholesterol levels.
4. A good source of vitamin D is eggs. One excellent source of vitamin D is the yolk of an egg. As a matter of fact, around 25% of adult Australians are mildly to moderately deficient in vitamin D, which increases the usefulness and demand for eggs. The body gets 82% of the needed daily dose of vitamin D from eating two eggs. For strong bones and teeth, vitamin D, often known as vitamin A. It specifically supports immune system and physical strength.
5. Eggs aid in weight equilibrium. Despite having few calories, eggs provide the body with necessary protein. Eggs are the best food choice if you struggle with weight control or want to reduce weight because they support good weight management. Your hunger can be satisfied and quenched with eggs, which lessens cravings. According to one study, eating eggs helps prolong feelings of fullness because they raise hormone levels, satisfy hunger, and sustain high energy levels, all of which improve metabolic activity without causing starvation. Specifically, including eggs in the diet helps to stabilize blood sugar levels, which helps with weight management.
6. A great source of choline (dietary cholesterol) is eggs. An essential nutrient in the liver is choline. But a lot of folks don't make enough choline to meet their daily requirements. Thus, a diet rich in foods like eggs is required to adequately complement this substance for people. Choline, like B vitamins, is necessary for proper cellular operation. This cell typically contributes to the growth of the brain and spinal cord during pregnancy, the maturation of an infant's cognitive abilities, and the prevention of dementia in the old.
7. Omega-3 is found in eggs. Omega-3 belongs to the category of essential fats, and it is an unsaturated fatty acid. It is crucial for the proper operation of cell membranes, which

includes heart and brain function as well as eye protection. You need to consume more omega-3-rich foods when your body isn't making as much of them. Omega-3 fatty acids are also found in fish oil, but if you're not a fish eater, eggs are a better option.

8. Antioxidants found in eggs are beneficial to the eyes. Antioxidants such as vitamin A, vitamin E, and selenium are among the numerous vitamins and nutrients included in eggs. It helps maintain healthy eyes and fight aging-related vision degradation. More precisely, some antioxidants found in eggs lower the chance of cataract development.

### 2.3 Nutrients in 100 Grams of Eggs

Eggs can make a significant contribution to a healthy diet. A medium-sized egg provides 78 kcal yet contains 6.5 g protein. The fat content is 5.8 g, of which 2.3 g is monounsaturated fat (Table 1). Eggs contain a variety of important vitamins, minerals and trace elements (Song and Kerver, 2000).

Table 1. Nutritional composition of eggs (chicken egg, raw)

Nutrients	Nutrient Content Per 100 G	Per Medium Egg (58 G) <sup>A</sup>	Cut-Off For "Source" Claim (15% RDA)	RDA
Energy (kcal)	151	78	-	-
Protein (g)	12.5	6.5	-	-
Carbohydrate (g)	Trace	Trace	-	-
Fat (g)	11.2	5.8	-	-
Cholesterol (mg)	391	225	-	-
Retinol equiv. (µg)	190	98	120	800
Vitamin D (µg)	1.6	0.9	0.75	5
Riboflavin (mg)	0.47	0.24	0.21	1.4
Folate (µg)	50	26	30	200
Vitamin B12 (µg)	2.5	1.3	0.38	2.5
Choline (mg)	160	83.2	82.5	550 <sup>b</sup>
Biotin (µg)	20	10	7.5	50
Phosphorus (mg)	200	104	105	700
Iron (mg)	1.9	0.99	2.1	14
Zinc (mg)	1.3	0.68	1.5	10
Iodine (µg)	53	28	22.5	150
Selenium (µg)	11	5.7	8.25	55 <sup>c</sup>

**Notes:** Values in *italic* meet the minimum requirement to be labelled as "a source" according to EU regulations (European Parliament and Council, 2006; European Commission, 2008), except for protein which can be labelled "high" because more than 20 per cent of the energy value is protein (European Parliament and Council, 2006); RDA, recommended daily allowance; a refers to edible portion of an average 56 g egg.

**Sources:** Nutritional composition data, FSA (2006); RDA data, European Commission (2008) except Zeisel et al. (2003) and EC (2008); <sup>b</sup> Zeisel et al. (2003); <sup>c</sup> Rehault et al. (2019)

### 3. RESEARCH METHODOLOGY

#### 3.1 Location of Study

This study is conducted at Veal Yun market, Svay Rieng town, Svay Rieng province by selecting all stalls which sell chicken eggs and duck eggs. The study is implemented from November 10, 2023, to February 05, 2024.

#### 3.2 Data Collection Method

For selecting egg sellers to be interviewed, three phases are separated for this study:

- Phase 1: The study team observed the overall situation of product sales in Veal Yun Market, with particular attention to the number and size of stalls selling chicken and duck eggs.
- Phase 2: After observing the number of stalls that sell eggs, five of the 19 sellers at Veal Yun Market are selected to conduct interviews.
- Phase 3: This is the interviewing stage where the study team interviews the egg sellers using the questionnaire that the team has prepared.

The questionnaire covers on the important details like the length of the sale, the quantity of eggs sold daily and monthly, the retail and wholesale prices, and the origin of the eggs they import. The two primary components of the interview questions are about supply and demand as well as the egg marketing chain.

### 4. RESULTS AND DISCUSSION

#### 4.1 Period of Selling Eggs

The longest period of selling egg of sellers are 10 years old, according to the interviews with egg sellers at Veal Yun Market. A salesperson who is just starting a selling is at least one year old, but it takes an average of about 2.5 years (Fig. 1).

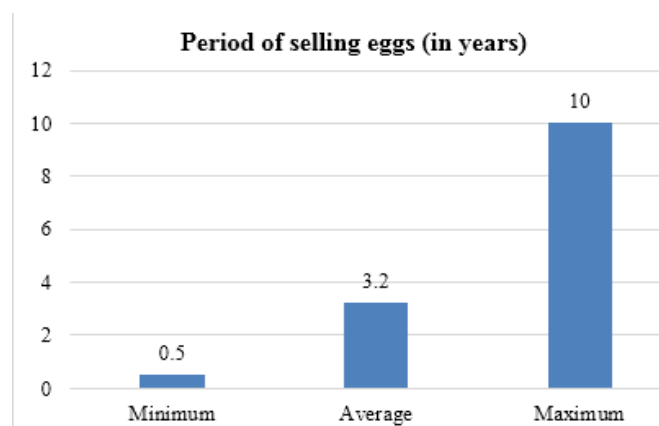


Fig. 1. Period of selling eggs (in years) of sellers at Veal Yun market

#### 4.2 The Price of Egg Buy-in

Following the interview with the chosen sellers, the data indicates that purchasing an egg cost at least 450 Riel each egg, with an average cost of 496 Riel per egg and a maximum cost of around 550 riel per egg (Fig. 2).

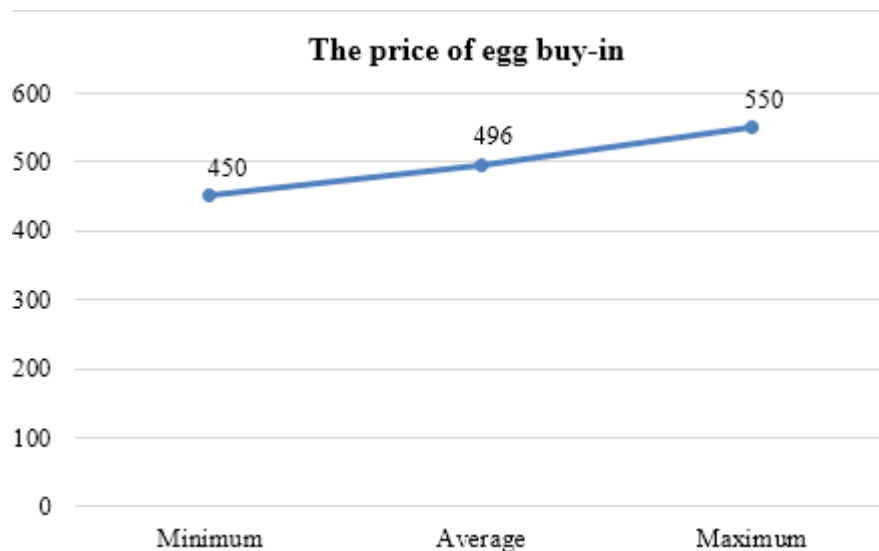


Fig. 2. The price of buy-in eggs (in Riel) at Veal Yun market

#### 4.3 The Quantity of Egg Sold-Out and Bought-in

Examining the information gathered from each egg seller regarding the quantity of eggs sold-out and bought-in, the findings indicate that the seller sold on average 15,000 eggs/month, while the quantity of eggs they buy-in on average comes to over 22,000 eggs/month (Fig. 3).

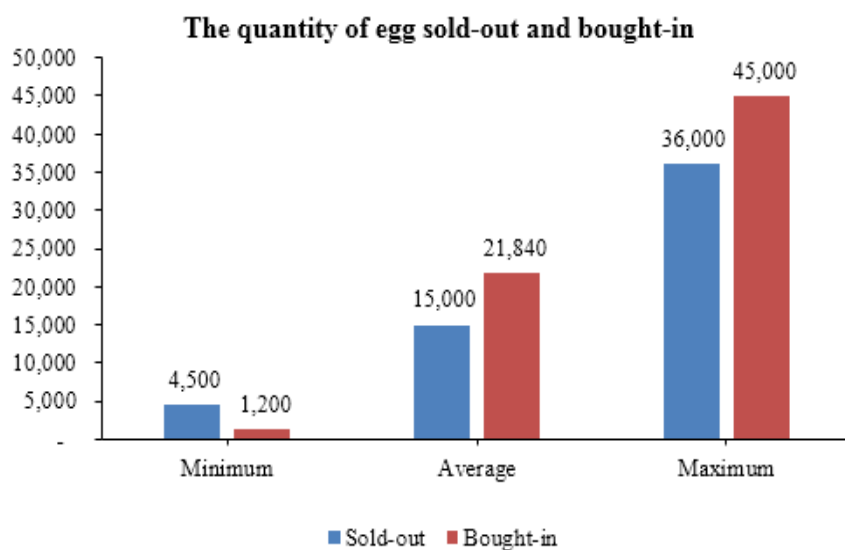


Fig. 3. The quantity of egg sold-out and bought-in

#### 4.4 The Price of Eggs Retail and Wholesale

According to the result, it showed that the price of eggs retail and wholesale in minimum, average, and maximum per egg is non-significant different (Fig. 4).



Fig. 4. The price of eggs retail and wholesale

#### 4.5 The Market Chain of Eggs Sale

In Veal Yun Market, Svay Rieng province, most chicken and duck eggs sold by sellers are sourced locally from nearby farms and nearby country. Brokers act as intermediaries, buying eggs directly from farms and then reselling them to wholesalers and retailers. Some sellers also bypass brokers, purchasing eggs directly from farms to sell to customers or processors.

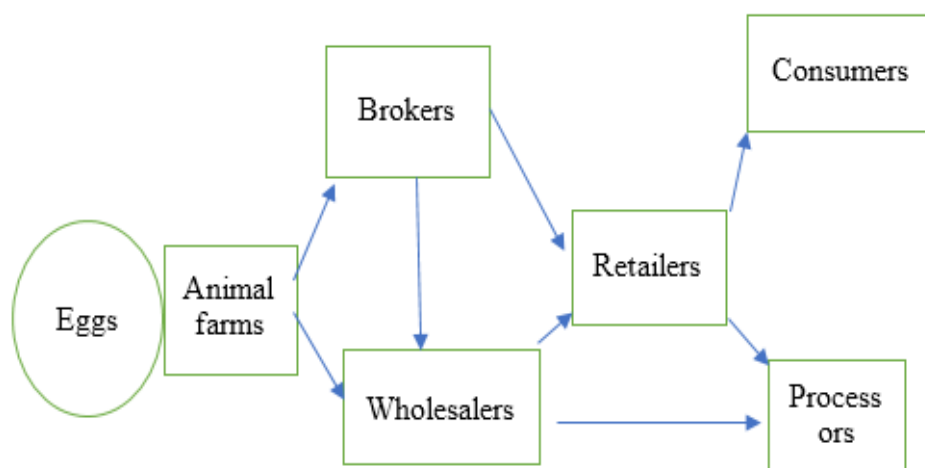


Fig. 5. The market chain of eggs sale



## 5. CONCLUSIONS

In conclusion, the research result suggests a dynamic relationship between egg supply and demand in the market. As expected, a seller's sales quantity is likely influenced by their experience and customer base, along with the pricing strategy. As recommendation, on a separate note, eggs offer a variety of health benefits, making them a popular and nutritious food choice in Svay Rieng province.

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**Pictures during the Survey**



Egg retailer in Veal Yun Market



Egg retailer in Veal Yun Market



Egg wholesaler in Veal Yun Market



Egg wholesaler in Veal Yun Market