FINANCIAL ANALYSIS OF LAYER INDUSTRY IN PULAU PINANG, MALAYSIA

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ABSTRAK

Industri telur di negara kita telah berkembang pesat dan menjadi salah satu industri moden. Ini disebabkan oleh unit pengeluaran besar, pelbagai jenis telur dibuat khusus, dan produk telur yang dihasilkan di pasaran untuk memenuhi keperluan pelanggan. Lebih kurang 40 juta telur dihasilkan dalam industri setiap hari.

Kajian ini dijalankan untuk menilai pembiayaan kewangan ayam penelur di Pulau Pinang, Malaysia dan menggambarkan sifat kos sedia ada ayam penelur di Pulau Pinang, Malaysia. Penilaian kewangan penting kepada usahawan baru yang terlibat dalam industri ayam penelur ini, dengan menggunakan penilaian ini mereka dapat menilai kecairan, keuntungan, kekuatan kewangan, dan kecekapan perniagaan. Ini membantu dalam membuat keputusan pelaburan yang baik. Sebaliknya, mengambil gambaran yang lebih luas ke dalam pandangan dengan memasukkan pelbagai pembolehubah ekonomi dan persekitaran. Ini membantu usahawan dalam menganalisi prospek masa depan sesebuah organisasi.

Penyelidikan ini dijalankan keatas 26 petani yang datang dari pelbagai peringkat umur, latar belakang pendidikan dan pengalaman. Data ini dikumpulkan dari Institut Kajian Dasar Pertanian dan Makanan. Data termasuk maklumat petani dan kos yang terlibatkan dalam ladang ayam penelur. Data diperolehi dengan mencari analisis kos dan analisa belanjawan modal dan dijalankan secara manual menggunakan Microsoft Excel. Secara keseluruhannya, kajian menunjukkan kos yang paling tinggi melibatkan industri ayam penelur adalah kos makanan ayam dan projek ayam penelur secara ekonomi dan berdaya maju.

ABSTRACT

The egg industry in our country has been rapidly grown and turn into one of the modern industries. This is due to the large productions units, a various range of tailor made eggs, and egg products produced in market to meet customer needs. About more than 40 million eggs are produced in industry per day .

This research was conducted to asses financial assessment of layer farms in Pulau Pinang, Malaysia and to described the existing cost attribute of layer farms in Pulau Pinang, Malaysia. Financial assessment important to the new entrepreneur that involves in this layer industry, by using this assessment they can assess the liquidity, profitability, financial strength, and efficiency of the business. This helps greatly in making good investment decisions. On the other hand, takes the broader picture into view by including various economy and environmental variables into account. This helps the entrepreneur in predicting the future prospects of an organization.

This research was conducted on 26 farmers which come from various age, educational background and experience.The data was collected from Institute of Agriculture and Food Policy Studies. The data include the farmer's information and cost involving the layer farms. The data is acquired by finding the costing analysis and capital budgeting analysis and run manually using Microsoft Excel. Overall, the research showed the most high cost involves in layer industry is feed cost and the layer project is economically and financially viable

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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science (Agribusiness)

Signature: ……

Name of Supervisor: PROF. DR. MOHD MANSOR ISMAIL

Position: SUPERVISOR

Date: JUNE 2018

STUDENT'S DECLARATION

I hereby declare that the work in this project is my own except for quotations and summaries which have been duly acknowledged. The project has not been accepted for any degree and is not concurrently submitted for award of other degree.

Signature: ……

Name: NABILAH ADILAH BINTI ROKIMI

Matric Number: 178573

Date: JUNE 2018

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CHAPTER 1

INTRODUCTION

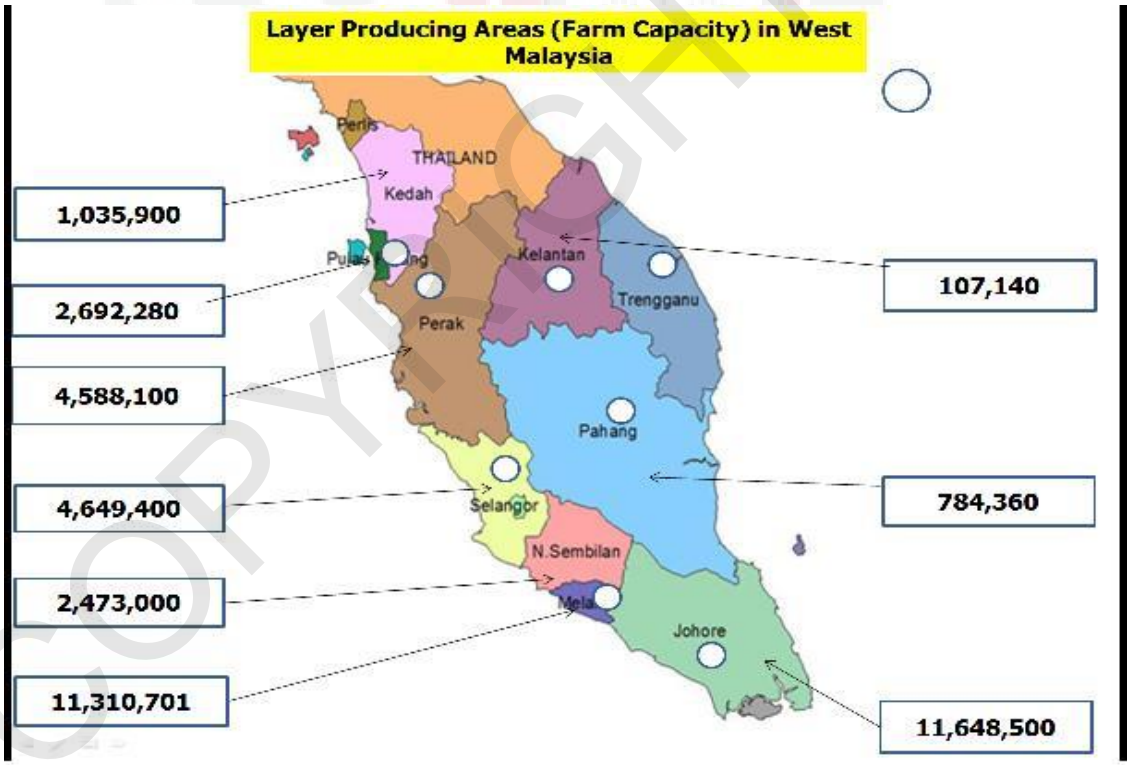
This chapter is discussed about the project background, the problem of the project, the objectives of the project and project scope.

1.1 PROJECT BACKGROUND

Chickens are small domestic animals raised all over the world, mainly for consumption of their meat and eggs. Native poultry production is an alternative to imported meat, thus reducing the need for imports (Chanjula and Pattamarakha, 2002). Self-sufficiency for milk, eggs and beef are below 20 percent. As a result, the country has seen an increase in its food import bill from RM4.6 billion in 1990 to RM10.0 billion in 1997(DVS, 1999). Thus, the Third National Agricultural Policy (NAP3, 1998-2010) emphasizes that "the further growth of the agricultural sector requires that the nation addresses the challenge to efficient and optimal utilization of existing resources in order to further improve competitiveness. Resource constraints and rapid changes in the global trading environment necessitate the development of a resilient agricultural sector and the enhancement of its global competitiveness. The Malaysian poultry industry has undergone a transformation over the last decade. Chicken production has increased, and small-scale producers have been largely replaced by integrators. Output is expanding slowly, in line with expectations for domestic demand growth. As a major producer of poultry in the Asia Pacific region, the country is self-sufficient. Currently, Malaysia is exporting live birds and processed poultry products to Singapore and some Middle East countries. Although the industry has the capacity to grow further, rising costs of production are limiting growth as almost all feed input such as soybean meal

and corn, which account for 65% of the production cost, are imported. A reduction in fuel subsidies, depreciation of Malaysian ringgit, and implementation of minimum wages in 2013 were also factors that have led to higher production costs in the country's poultry industry. For layer farms in Malaysia, two types of system have been practicing which are open system and close system

1.2 LAYER FARM PRODUCTION



Picture 1 : Number of Layer Farms Area in Malaysia According to State

The number of layer farm area in Malaysia is increasing by year because many new entrepreneur starts to involve in this industry as its provides a huge profitability to the business. According to the Picture 1 the largest area for layer producion is Johor which is 11,648,500 sm followed by melaka which is 11,310,701 sm. The Federation of Livestock Farmers' Association of Malaysia, whose role is to maintain good agricultural practices and compliance in the country, has announced plans to raise poultry production efficiency and technology in the country. The association also encourages modernization of Malaysian farms that will include transformation into closed house system in addition to improving hygiene standards. The association aims to make its poultry products that are sold locally to be good enough for export and to build consumer confidence in local poultry (Iowa Economic Development Authority, 2017).

The market continues to grow beyond conventional and cage-free eggs in Vermont but it is difficult to concretely quantify the demand for eggs sold with additional attributes. The demand varies from region to region around the state and from season to season. In general, demand is the greatest for producers that are able to provide a consistent, year-round supply at a competitive price point(Huntington & Vermont, n.d.) .

Bilangan Ladang Penternakan ayam dan itik penelur di Malaysia mengikut negeri pada tahun 2015-2016				
Negeri	Ayam	Itik	Baka Unggas	
			Ayam	Itik
	Penelur	Penelur	Penelur	Penelur
Perlis	0	14	0	0
Kedah	11	8	0	0
P.Pinang	81	12	0	1
Perak	25	26	1	0
Selangor	26	18	1	0
N. Sembilan	8	1	1	0
Melaka	23	11	8	0
Johor	58	1	1	0
Pahang	8	35	0	0
Kelantan	0	55	0	0
Terengganu	2	74	0	1
Sabah	21	8	1	0
Sarawak	38	7	0	0
JUMLAH	**301**	**270**	**13**	**2**
Source: DVS Malaysia				

Source : DVS and FLFAM

Picture 2 : Number of Layer Farms in Malaysia According to State

Livestock industry has been self-sufficient since 1984. The poultry sub-sector contributes RM4.0 billion (poultry meat RM2.9 billion and eggs RM1.1 billion) or 76.8 percent of the ex-farm output value of the industry (DVS, 1999). During the years 1998-2000, the broiler and egg industries increased their output at a rate of 8.9 percent and 3.3 percent per annum, respectively. 'Integrator' is a major commercial player in the production of broilers and eggs, and presently contributes 75 percent of total output

in Malaysia. Per capita annual consumption of broiler meat is 31 kg and for eggs, 16.6 kg. The export earning from this industry was RM440 million in 1999 (Ministry of Agriculture, 2001).

1.3 EGG PRODUCTION

Table 1 : Price of eggs in Malaysia According to Year 2008 – 2014

Year	Prices (cents/egg)
2008	27.40
2009	27.50
2010	30.00
2011	30.30
2012	29.50
2013	31.40
2014	34.50

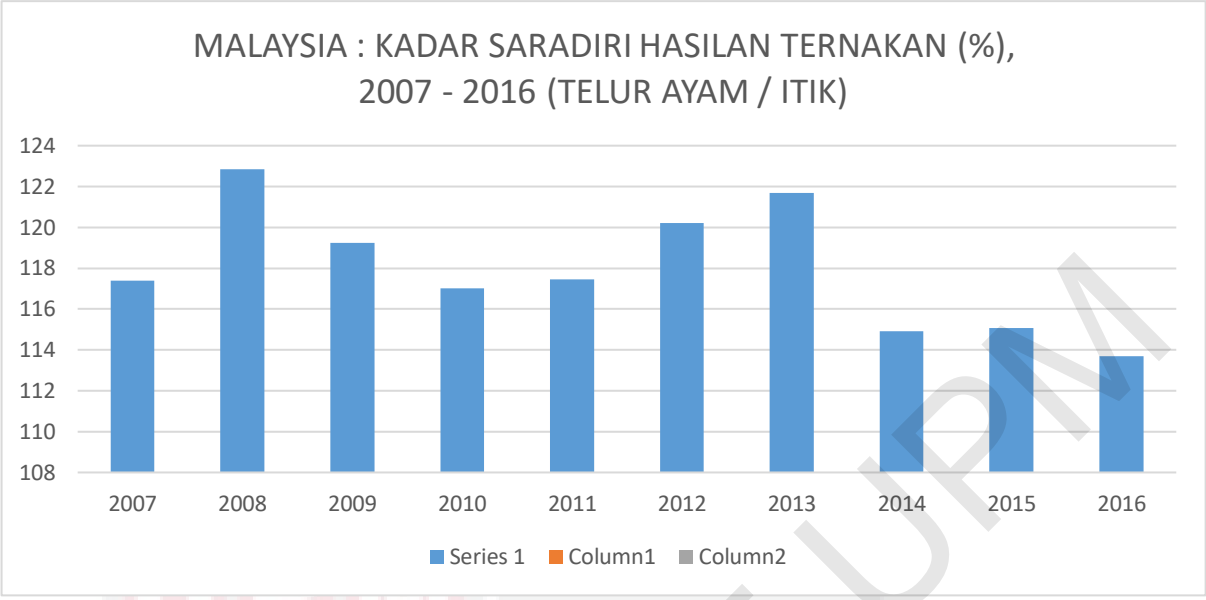
Egg production was 10,307 million in 2014. The projected production of 2015 is 10,464 million eggs. In 2014, a total of 1,504 million eggs were exported. The annual average ex-farm price of egg was 34.50 cents (Table 1). The annual average cost of production was 32 cents. The ex-farm prices of eggs fluctuated weekly within the grades. The difference in price between minimum and maximum prices was about 29.00 cents to 39.00 cents each. The annual average ex-farm price was 34.50 cents per egg (Grade C)

Table 2 : Imported product of eggs based according to year 2013 - 2014

Products	Quantity (metric ton)	
	2013	2014
Egg Yolk Powder	34.00	123.90
Egg White Powder	11.60	2.50
Egg White Solid/ frozen	0	57.15
Whole Egg Powder	67.61	57.51
Egg Product (Mayonnaise & Sauce	2,544.32	957.65
Egg Albumin/Albumin powder	357.66	472.01
Total	**3,015**	**1,670**
SPF Egg	194,400pc	199,800pc

In 2014, import of products from egg were 1,670 metric tons. Of the total products imported, 57.34% was in the form of egg product (mayonnaise and sauce). All the eggs are marketed through wholesalers as fresh in shell eggs. There are presently two relatively small egg processing plants in operation to produce different forms of liquid eggs for the bakery and confectionery industries.

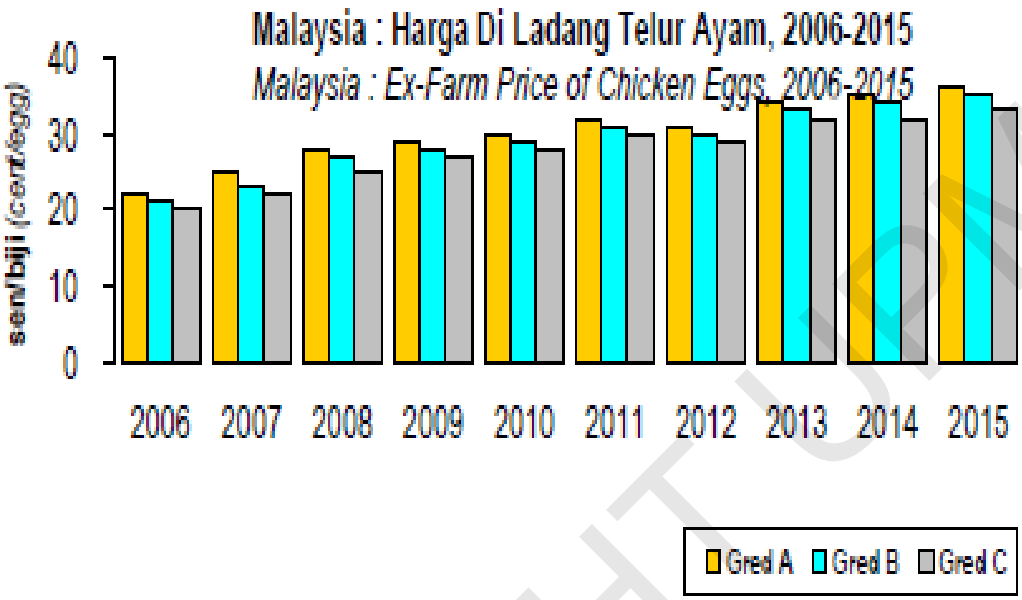
There is growth in the production of "designer eggs" to meet the demand for "healthier" eggs deemed to be lower in cholesterol and higher in omega 3 fatty acids. Efforts are being made to export in-shell eggs. In 2016 exports were made to Hong Kong (117.52million), Timor Leste (25.79 million), Macau (9.10 million), Maldives (8.12 million), Brunei Darussalam (0.03 million). Interest to export was higher than in the previous year as the export prices are more attractive.



Graph 1 : Self Sufficincy Of Egg Production In Malaysia According To Year 2007 - 2016

In 2013, the livestock sector accounts for about 12.4% of the total agricultural gross domestic product (GDP) (Shanmugavelu, 2014). In 2014, the poultry production has grown very significantly and exceeded pork production. It has enabled Malaysia to be self-sufficient in poultry meat and eggs since the 1990s. This favorable poultry development is caused by the introduction and adoption of foreign hybrid birds, financial support facilities, enhanced food nutrition, better feed conversion rates, shorter maturity periods and a reduction in mortality rates (Mohamed, 2007). Although Malaysia has achieved sufficiency level in poultry, there are still importations of poultry. This importation is normally in the form of day-old chicks or parent stocks for breeding purposes (Mohamed, 2007).

R&D is expected to generate new technologies that can increase farm productivity, higher quality breed, healthy animals and efficient production system. However, the technology developed must be suitable and affordable to farmers. The use of technology applications can produce sustainable modern livestock industry.



Picture 3 : Farm Price Of Egg in Malaysia According to Year 2006 - 2015

The demand for eggs has been very inelastic; therefore, a slight change in shell egg production results in a significantly larger change in shell egg prices (Miller and Masters, 1973). Don Bell (1996), poultry specialist for the extension service at the University of California, found that from 1983 to 1995, a 1% change in egg supply resulted in a 6% opposite change in egg prices. Therefore, historically, the egg supply and egg price relationship results in large swings between profit and losses for shell egg producers. In the 2 Donald Bell, Cooperative Extension, University of California, Riverside, CA 92506. final analysis, it is quite obvious that slight changes in total US egg production can have a very large impact on shell egg revenues for all egg producers (Roy and Johnson, 1973)

1.4 PROBLEM STATEMENT

Layer industries become a new business that had been involved by new farmers in creating market and earn fast profit in shorter time for rearing. Chicken and eggs are locally produced and ensured its availability, accessibility, affordability and safety for consumption. 25 Million table eggs (±16 % Exported) for daily output in Malaysia (DVS Malaysia). There are about 5 Layer Parent Stock Farm Companies which is 20 farms around Malaysia and also 30 million layers rearing capacity (DVS Malaysia).

However, layer industry faces challenges to its cost of operation in layer farms. It involves its feed cost in affecting the profit incurred in the layer industries. In cost of animal production, feed cost represent the major item. Without doubt, there are some efforts to refine feed processing techniques in order to reduce the cost of feed and to increase the value feed for a target animal(Behnke, 1996). One of the main reasons cited by many researchers, the industry cannot perform better because of the higher cost of feed and highly rely on the price trend of the main feed ingredients(Abdurofi, Ismail, Kamal, & Gabdo, 2017)

The main problem of the industry is a dependency on imported feed ingredients to meet the requirement of livestock for growth. Comprehensive research encouraged to reduce feed costs is by using the local ingredients as substitute for imported raw ingredients traditionally used in commercial feeds. In 2008, a shortage of feed ingredients resulted in China and India imposing export quotas on wheat flour, corn and soybean meals which make it even more crucial for local researchers to evaluate the potential of locally available feedstuffs and agricultural by-products for use in feed formulations.

A feeding trial was carried out to evaluate the laying performance of laying chicken fed with diets formulated with various levels of sweetpotato by-products (SPB) including leaves and vines. These birds were divided into two groups with two different treatment diets; corn-soy based diet (T1) and diet formulated with 5% SPB (T2). Results revealed that replacement of certain imported ingredients did not significantly depressed egg production and feed conversion ratio (FCR) of laying chicken ($p > 0.05$).

The view of the anticipated unstable profit in the layer industry necessitated largely by high cost of production, an economic analysis aimed at revealing the current status of layer production in terms of costs and benefits through various performance indicators is indeed important to newcomers and policy formulation in Malaysia.

1.5 OBJECTIVE OF THE STUDY

General Objective

The purpose of the study is to identify the financial analysis of layer farms.

Specific Objectives

a) To asses financial assestment of layer farms in Pulau Pinang, Malaysia

b) To described the existing cost attribute of layer farms in Pulau Pinang, Malaysia

1.6 SIGNIFICANT OF THE STUDY

This study will be significant and useful after its completion for both current and future society, business organization especially for new farmers in layer chicken and also maybe to the government. This research study on economic and financial analysis of layer industries would be benefits to the society, business organization and also maybe the government itself.

i. **To the society**

This study will provide the general information of economics and financial background in layer industy. Thus, if the business seemes lucrative, it would attract potential farms or society to involve in layer industry.

ii. **To business organization**

The result obtained from this study will enable the organization to estimate financial analysis involves the selection, evaluation, and interpretation of financial data and other pertinent information to assist in evaluating the operating performance and financial condition of a company in layer industry.

iii. **To the government**

This study also will be useful for the government to consider any policies mainly for the financial and economics recommendation in order to assist layer farms in Penang.

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