

Analysis of the coconut oil industry economics essay



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The coconut oil milling industry, which started during over a century ago, is still active and exporting to other countries. This industry seems to have a huge potential for profit in both the local and global setting. Producing millions of metric tons of coconut oil, the Philippines is the top exporter of coconut oil; hence, the firms producing them are highly profitable.

This paper investigates the profitability level of the coconut oil industry. Furthermore, the paper would be looking at its production and exports contributing to the economy. Lastly, the paper would take a look at its trends and how it affects Philippine's GDP. The paper would be using statistics, tables, graphs and news to prove that the said industry is making profit up to this point.

This paper hopes to achieve more insight on the coconut oil industry and learn more about its current state in the Philippine market.

Introduction

Background History

Other than semi-conductors exports, the Philippines is also known for its coconut oil exports. The Philippines is presently the top exporter of coconut oil worldwide. In 1989, the Philippines was the second largest exporter after Indonesia. The Philippines is producing a lot of metric tons of coconut oil and exporting them to the world. Some of the countries that the Philippines cater to are United States, Netherlands, Japan, Italy, and China (" Philippines coco oil exports up to 33. 39 pct in November", 2010).

The coconut oil industry started to bloom during the 1960's. The Philippine peso's devaluation during 1962 and 1970 respectively had increased the world's demand for Philippine products such as coconut oil. Because of this devaluation, the land devoted to coconut oil has been increasing 6% per year which in the 1960's and 1970's land devoted to coconut oil cultivation has been increased by 6% per year due to the devaluation of Philippine peso in 1962 and 1970 respectively therefore increasing world's demand for coconut oil. Because of this devaluations, the local government provided investment incentives to encourage the production/processing of coconut oil. The number of coconut mills grew from 28 to roughly 62 mills in 1979. (" Philippine-Coconut Industry, 1991)

During the Martial Law Regime in 1973, all coconut-related, government operations were placed under the control of one agency known as the Philippine Coconut Authority (PCA). The PCA was tasked to collect a levy of P 0. 55 per 100 kilograms of copra to stabilize the domestic prices of coconut-based goods, particularly coconut cooking oil. In 1974, the Coconut Industry Development Fund was created for the development of hybrid coconut trees. In the same year, the PCA was overtaken by the Coconut Producers Federation or Cocofed, a group of coconut planters. In 1975, PCA acquired a bank which was renamed to United Coconut Planters Bank, to help coconut farmers in their business. (" Philippine-Coconut Industry", 1991)

In the early 1980's, as coconut prices began to fall, the government was pressured to alter the structure of the industry. The government was being forced to give up its monopolization of coconut oil. In 1985 the Philippine government agreed to dismantle the United Coconut Oil Mills as part of an <https://assignbuster.com/analysis-of-the-coconut-oil-industry-economics-essay/>

agreement with the IMF to bail out the Philippine economy. By 1989, coconut trees occupied about 25% of cultivated land. It is estimated that around 25% to 33% of the population was at least partly dependent on coconuts for their livelihood. (" Philippine-Coconut Industry", 1991)

Research

Coconut Industry

The coconut industry is the biggest agricultural industry. Based on 2002 Census from the Department of Agriculture, the industry comprises roughly 1. 4 million or at least 30% of the total farms in the Philippines. The production of coconut oil heavily rests on the coconut grown by the millions of farmers. The land that grows coconuts is totaled to be roughly 3. 32 million ha which surprisingly is even bigger than the land used to produce rice (Dy, 2006). There are 65 coconut oil mills which have the capacity to crush 4. 54 million tons of coconut a year (Dy, 2006).

The agricultural sector employs almost 40 percent of the total labor force to produce agricultural products like rice, coconuts, etc. (Encyclopedia of Nations). Presently, 25 to 33 percent of the population is dependent of the coconut industry as their livelihood, whether it is through farming the coconuts or milling and refining them (Dolan, 1991). The government and United Coconut Association of the Phillipines (UCAP) declared that the coconut industry might be the next major employment sector of the Philippines (Coconut industry poised as next major employment sector, 2011). They projected that the employment coming from the coconut

industry would significantly increase in size by end of 2016 (Coconut industry poised as next major employment sector, 2011).

Market size

Figure Coconut Oil ProductionThe Philippines, Indonesia, and India are the leading exporters of coconut oil in the Asia Pacific. They account for more 75% of the total production of coconut oil in the world (Smith & Nyugen, 2009). It is estimated that the Philippines alone produces around 13 billion coconuts which is refined to oil (Dhanuraj, 2004). In 2011, the production of coconut oil in the Philippines was estimated to be roughly 1. 7 million metric tons (Index Mundi, 2011). In the past five years, more and more coconut oil is being produced due to the efficiency of equipment and cultivation of land.

The continuous trend in production of coconut oil is an indication of how stable the industry is. The fact that the industry can manufacture almost the same amount of coconut oil per year would show us how stable the industry is.

Revenues on Exports

Source: Bureau of Agricultural Statistics

Figure 2 Coconut Oil Exports

Figure Coconut Oil ExportsThe coconut oil industry is focused more on exporting cooking oil to other countries. There is no data on the revenue and profit of the industry in the local setting. Every four out of five metric tons produced in South East Asia, especially from the big three producers, are sent to either Europe or the United States (Smith & Nyugen, 2009). Only one

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out of every five metric tons remains in Asia. The Philippines, being the top exporter of coconut oil in the world, has exported millions of metric tons in the past three years (Department of Agriculture, 2011)(see figure above). Furthermore in 2010, the Philippines has not only exported 1.3 billion metric tons of coconut oil, but also earned around 1.2 billion USD which is an outstanding revenue of 55 billion pesos (Department of Agriculture, 2011). During the First quarter of 2010, the prices were pegged at around 1000 USD (Department of Agriculture, 2011).

GDP

In recent years, the agricultural sector roughly contributes 12~15 percent of the Philippine GDP (Index Mundi, 2011). The agricultural sector had contributed roughly 4 billion USD in 2010. Coconut oil and tuna were computed to be 39.67% percent of the total GDP contributed by the agricultural sector (Department of Agriculture, 2002). The GDP of 2010 has risen by roughly 30.67% from the previous year's GDP (Department of Agriculture, 2011).

Though it is true that the GDP decreased in 2011, mathematically speaking the GDP contributed by the agricultural sector did not. During 2010, the GDP of the Philippines is roughly 7.3% and roughly 13.9% of comes from the agricultural sector (Instituto Espanyol De Comercio Exterior). In 2011, the GDP is roughly 3.7% which is significantly lower than the previous year, but the agricultural sector still maintains and contributes roughly 12.3% which is not bad (Index Mundi, 2011). Furthermore, on December 2011, coconut oil exports began to rise again by about 2.7% (Reuters, 2011). Thus, coconut oil exports would increase by the year 2012. The Philippine Coco Coir
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Industry forecasts that by 2016, the exports of coconut oil would increase by 400 percent (“Coconut industry poised as next major employment sector”, 2011).

Importance to the Economy.

According to the research done Roland Dy, Ph. D, the coconut oil industry is important to the economy of the Philippines. First, coconut farms are located in 68 out of the 79 provinces of the Philippines. Second, 30% of the total farmlands in the Philippines are coconut farms. Third, coconuts contribute half of the agricultural exports. Fourth, coconut farming lands have the largest potential of diversification. Fifth, it is a huge untapped resource pool for industry development (Dy, 2006).

Not only has coconut oil been sold abroad as exports, but it also used as cooking oil. Coconut oil is also used in homes (Isip, 2012). A significant percentage of the market uses coconut oil. It is not only used by homes but also by biscuit industries.

The National and Global Environment

Technological Environment

The Technological Environment of a business greatly affects its ability to produce its products and, therefore, affect its overall performance in the industry. In the Philippines in 1997, coconut production in copra equivalent accounted for 3.83% of the total production of agricultural crops (Aragon, 2000). The coconut production during 1990-1997 was a little small which was due to the slow growth rates in coconut hectareage (0.9%/year) and

coconut-bearing trees (0.3%/year) (Aragon, 2000). During the period of 1990-1997, about 91% of the coconut production in the Philippines passes through the copra stage (Aragon, 2000). The minimal production of coconuts of the stagnant farm sector caused the over-capacity of the coconut industrial sector. According to the study done by the Philippine Coconut Industry, there are about 65 coconut oil mills with an installed copra crushing capacity of 4.54 million tons a year (Dy, 2006). According to another study made by them, the number of mills in the Philippines rose from 28 in 1968 to 62 in 1979 ("Phillipine Coconut Industry", 1991). There was also an issue of declining yields because of the aging of coconut trees in some regions ("Phillipine Coconut Industry", 1991).

Some coconut oil milling industries still use "low technology" machineries or techniques to produce coconut products. There have been many researches and experiments done to improve this industry. Technologies for coconut processing have been made but only a few of these reached the actual production areas. During a study made by Joey Faustino (2006), the farmers burn the higher value coconut husks/shell to dry the lower value output that is copra (coconut shell). This means that because of the low level technologies that are used by some of the farmers and companies, their level of output is also affected.

A famous Malaysian newspaper republishes Wong Yee Tuan's work, which says:

"In the late 19th century, a few businessmen introduced new technology and established Khie Heng Bee Mill, a modern rice and oil mill equipped with

steam and hydraulic machinery. The mill was driven by a 60hp horizontal engine and the hydraulic oil presses were worked by a 24hp engine. It was capable of producing 100 piculs (6, 000 kilos) of oil per day. It became one of the largest and most important industrial concerns in northern Malaya. The founders of this modern enterprise were Phuah Hin Leong, Chuah Yu Kay, Lim Leng Cheak, Cheah Joo Jin and Cheah Ewe Ghee." (Tuan, 2011)

Their technological advancement affected their capability in producing their products. The initiative made by these businessmen inspired others to develop new technologies to improve the industry.

In Zamboanga, the Zamboanga Coconut Research Center have produced around 20 hybrid coconut varieties according to the Philippine Coconut Administration (Gumapon). These hybrid coconut varieties were discovered to counter the dry spell (Gumapon). The Coconut Industry Investment Fund-Oil Mills also uses modern technologies in operating their plants. Their plants have a combined crushing capacity of 750, 000 metric tons of copra with a refining capacity of 280, 500 metric tons of different grades of processed coconut oils (CIIF Oil Mills Group).

Having technological advancements helps the industry to improve. The modern technologies help the companies to produce more copra which in turn helps them produce more coconut oil.

Economic Trends

Coconut oil production is a constant all year round process. As long as there is a constant supply of coconut, coconut oil, and other by-products are constantly being refined and manufactured. Coconut oil products are sold to <https://assignbuster.com/analysis-of-the-coconut-oil-industry-economics-essay/>

different firms all over the Philippines and are also exported to other countries all over the world. The Philippines mostly exports its products to countries like United States, Japan, Europe, and most of the ASEAN countries (Encyclopaedia of Nations).

The Philippines, being the top producer and exporter of coconut oil, is rapidly growing during the last few years. In the last two years, 1.69 billion metric tons of coconut oil is being produced all over the Philippines (Index Mundi, 2011). But in the recent years, the exportation of coconut oil is slowing declining over the years. The coconut oil industry for 2011 exports roughly fell to .8 million metric tons from the 1.34 million of metric tons produced during 2010 (Olchondra, 2012). Decline in exports of coconut oil is being attributed to the 2011's large export of coconut oil. During January 2012, a coconut oil export is roughly 54,000 metric tons which is roughly half the exports of last year (Galvez, 2012). According to Yvonne Agustin, UCAP executive director the export of coconut oil is going to increase by the second quarter. She says, "Right now, the demand for CNO is still weak since most of the foreign buyers still have plenty of stocks from last year, but we expect demand to pick up in the second quarter of the year (Galvez, 2012)."

According to a research by Asian and Pacific Coconut Community, coconut oil is being produce and exported in significant volumes (see figure below).

During the early stages of the coconut oil industry, the production and exports of coconut oil is roughly 1.5 million metric tons and .5 million metric tons respectively. The market had grown so fast that the Philippines alone

can produce the same amount of coconut oil in just a year time. (Vinay Chand Association)

Figure Coconut Oil Production and Exports
Production and Exports of Coconut Oil in Metric Tons
C: Users\ROBERT S. CHENG\Desktop\Untitled. png

Source: Index Mundi
Global Environment

Coconut oil accounts for approximately 20% of all vegetable oils used worldwide. Coconut oil is used in margarines, vegetable shortening, salad oils, confections, and in sports drinks to boost energy and enhance athletic performance.

The total cultivation under coconut was estimated at 11.0 million hectares producing 55 million tons in 2004. Asia remained the largest producing region at 46 million tons or 85% of global production in 2004. In the western hemisphere, South America was a major producing region at 6% of production (Singh & Seepersad & Rankine eds, 2007)

Philippines and Indonesia are the world's two largest producers of coconut, with an estimated production of 16.3 million tons and 14.4 million tons from 3.3 million ha and 2.7 million ha respectively. In 2007, the Philippines produced 37% of total world production and Indonesia comes second with 29%. India, the third largest with 13%, produced an estimated 10 million tons from 1.9 million ha. Indonesia and the Philippines were major exporters while India consumed most of its coconut production. Central America, Brazil, Mexico (with 4%) and Jamaica were major producers in the Western Hemisphere (Singh & Seepersad & Rankine eds, 2007).

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World production in 2007 fell by -6.8% yr/yr to 4.652 million metric tons, and remains far below the record high of 5.662 million metric tons posted in 2001. (CRB Fundamentals – 2008 Commodity Articles: Coconut Oil and Copra”, 2008). This fact might be true for the world’s production of coconut oil. But the Philippine’s is still consistently performing well with 1.358 million metric tons and 1.625 million metric tons in 2001 and 2007 respectively (Index Mundi).

The table that follows summarizes the world production of coconut oil in 2011.

World Coconut Oil Production in 2011

Source: USDA

Figure Coconut Oil Production 2011

Price of Coconut Oil in 2011

Source: Index Mundi

Figure Coconut Oil Prices

Percentage Change in Coconut Oil Prices in 2011

Jan 2011

2,063.00

Source: Index Mundi-

Feb 2011

2, 260. 00

9. 55 %

Mar 2011

1, 925. 00

-14. 82 %

Apr 2011

2, 088. 00

8. 47 %

May 2011

2, 097. 00

0. 43 %

Jun 2011

1, 803. 00

-14. 02 %

Jul 2011

1, 663. 00

-7. 76 %

Aug 2011

1, 454. 00

-12. 57 %

Sep 2011

1, 310. 00

-9. 90 %

Oct 2011

1, 208. 80

-7. 73 %

Nov 2011

1, 479. 00

22. 35 %

Dec 2011

1, 439. 00

-2. 70 %

Figure Coconut Oil Price Change

The world market price for coconut oil is constantly fluctuating. The following table shows the schedule for the price of coconut oil in the world market for the past year. In 2011 alone, price percentage changes fluctuated to a decrease as low as -14.82% in March and to an increase as high as 22.35% in November. The following table shows the schedule for the price of coconut oil in the world market for the past year.

Health Benefits

Coconut oil is known to be one of the more expensive oils. It can be seen in trends that among the widely used edible oils, coconut oil usually takes a higher level of prices. The following graph compares edible oil prices of soybean oil, palm oil, canola oil and coconut oil from 1997 to 2005. The steep downward slope of coconut oil was due to the Asian financial crisis. Coconut oil being more expensive than its competitors had suffered a lot from the crisis. As seen after the crisis, the trend is gearing upwards again.

Edible Oil Prices from 1997 to 2005

Source: Index Mundi

Figure Edible Oil Prices

When talking about the global environment of the coconut oil industry, it is important to take note of the possible impact of recent medical research done on the health benefits that can possibly be acquired from coconut oil.

As written by Singh, Seepersad and Rankine(2007),

“ Over the last decade, there has been an increase in the number of scientific studies conducted relating to the merits of the traditional tropical diets premised on the use of fruits and vegetables as practiced in the Philippines and Hawaii. Also, studies focused on the merits of using some of the product derivatives such as coconut and palm oil as compared to traditional soybean and other unsaturated oils.

Coconut oil has been proven to have a saturated fat, which is of the medium-chain fatty acid variety (MCFAs). MCFAs are more readily digested by the body, in that MCFAs are not stored as fat but are immediately converted into energy. This results in an overall increase of the body's metabolism.

Studies... showed that coconut oil prevented the formation of hepatic cholesterol esters. In addition to this, the lauric acid found in coconut oil provides the disease fighting fatty acid monolaurin, which boosts the immune system.

Coconut reportedly has been proven to have no dangerous trans-fats, which are traditionally found in vegetable oils, margarine and shortenings. These substances have the effect of increasing the body's production of LDLs or 'bad' cholesterol, which has implications for heart disease, diabetes and other health problems.”

Conclusion

The Philippine Coconut Oil industry, which started over a century ago, bloomed and is still consistently profiting from selling cooking oil to the local and global market. Though it has been affected by the Asian Financial Crisis, it still managed to recover. It was able to brought back its sales.

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The trend of using coconut oil is still consistent. The Philippines produces and exports coconut oil in the same degree. Despite the fluctuating prices and volumes sold of coconut oil, the percentage it contributes to the Philippines GDP has been overall consistent over the past few years.

With new technology, the production of coconut oil has been and is consistently getting better. There are fewer wastes, and the cooking oil manufacturers are finding ways to use these wastes for other purposes. My uncle who is part of this industry and one of the leading manufacturers of coconut oil says they are using the wastes as components for bio-fuel.

The market for coconut oil has been consistent throughout these past few years despite the costs of coconut oil against its substitutes. Though edible coconut oil is a lot more expensive than oil made from other products such as palm oil, coconut oil is still welcomed by the market.

With this statistics, I would like to believe that the coconut oil industry would continue to move on and still be successful in future. Despite the indications of the industry degrading, still shows consistent performance.