

# [Jack fruit seed spread](https://assignbuster.com/jack-fruit-seed-spread/)

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## Historical Background

A spread is afoodthat is spread with a knife onto bread, crackers, or other bread products. Spreads are added to bread products to provide flavor and texture, and are an integral part of the dish; they should be distinguished from condiments, which are optional additions. Spreads should also be distinguished from dips, which do not employ a knife in applying it to crackers or chips. (en. wikipedia. org)

Butter is a dairy product made by churning fresh or fermented cream or milk. It is generally used as a spread and a condiment, as well as in cooking applications, such as baking, sauce making, and pan-frying. Butter consists of butterfat, water, and milk proteins. Most frequently made from cows' milk, butter can also be manufactured from the milk of other mammals, including sheep, goats, buffalo, and yaks. Salt, flavorings, and preservatives are sometimes added to butter.

Rendering butter produces clarified butter or ghee, which is almost entirely butterfat. (en. wikipedia. org) The proponents’ focuses on making Jackfruit seed butter that will be profitable and demandable by the consumers in the mere future. This study will prove and give new ideas to the industry that we can use different ingredients or raw materials in producing new products. The jackfruit has played a significant role in Indian agriculture for centuries. Archeological findings in India have revealed that jackfruit was cultivated in India from 3000 to 6000 years ago.

Findings also indicate that Indian Emperor Ashoka the Great (274–237 BC) encouraged arbori-horticulture of various fruits including jackfruit. Varahamihira, the Indian astronomer, mathematician, and astrologer, wrote a chapter on the treatment of trees in his Brhat Samhita. His treatise includes a specific reference on grafting to be performed on trees such as jackfruit. Jack fruit trees are seen in almost all areas of Kerala except sandy areas. Maturing in 35-40 years, their wood can be used for furniture. The gum from this tree and jack fruit is used as a stopper for small holes of pots. No one knows the jackfruit's place of origin but it is believed indigenous to the rainforests of the Western Ghats.

It is cultivated at low elevations throughout India, Burma, Ceylon, southern China, Malaya, and the East Indies. It is common in the Philippines, both cultivated and naturalized. It is grown to a limited extent in Queensland and Mauritius. In Africa, it is often planted in Kenya, Uganda, and former Zanzibar. Though planted in Hawaii prior to 1888, it is still rare there and in other Pacific islands, as it is in most of tropical America and the West Indies. It was introduced into northern Brazil in the mid-19th Century and is more popular there and in Surinam than elsewhere in the New World. In Asia, jackfruits ripen principally from March to June, April to September, or June to August, depending on the climatic region, with some off-season crops from September to December, or a few fruits at other times of the year.

In the West Indies, I have seen much ripening in June; in Florida, the season is late summer and fall. The seeds, which appeal to all tastes, may be boiled or roasted and eaten, or boiled and preserved in syrup like chestnuts. They have also been successfully canned in brine, in curry, and, like baked beans, in tomato sauce. They are often included in curried dishes. Roasted, dried seeds are ground to make flour which is blended with wheat flour for baking. (http://www. hort. purdue. du)

The researchers thought that instead of throwing the seeds and making it a waste, they decide to make this spread using the seeds of a jack fruit as a main ingredient to produce this product. Aside from that these seeds contain and give the essential nutrients that our body needs. In preparing this product different utensils and materials are needed. Make sure your utensils are washed properly. It is best to use hot soapy water to clean the food processor and the pan where peanuts are in contact with. Do the same with the mixing cups and, storage containers.

The demand for sandwiches spread in the market is gradually increasing because of the continuous increase in population, that’s why this product will certainly fulfill the demand of the consumers. Even there are a lot of competitors in the sector the proponents believe that the consumers will buy these goods because it is nutritious and affordable. The proponents believe that producing this product will benefit many people and will help the food industry. One of its major beneficiaries is the consumers, the government, competitors, and other investors that are more focused on the food industry.

## Statement of the Problems

1. Marketing Aspect

1. 1 What are the promotional strategies that should be implemented to attract customers?

1. 2 Is there a demand for the product?

2. Management Aspect

2. 1 What is the organizational form of the business?

2. 2 How many employees needed in putting up this business?

3. Technical Aspect

3. 1 Where is the appropriate location in putting up the business?

3. 2 Who are the possible suppliers of the materials needed for the business?

4. Financial Aspect

4. 1 How much would be the total capital needed to establish the business?

4. 2 How long will the business recover its investment?

5. Socio-Economic Aspect

5. 1 What are the possible contributions of the business in the national and local economies?

5. 2 What are the changes that may occur in the economy?

## Objective of the Study

1. Marketing Aspect

1. 1 To determine the promotional strategies to be used to attract customers.

1. 2 To evaluate the status of supply and demand.

2. Management Aspect

2. 1 To be able to know the form of business or type of ownership to be applied in this study.

2. 2 To identify how many employees to be needed.

3. Technical Aspect

3. 1 To determine the ideal location of the business.

3. 2 To identify the suppliers of the business.

4. Financial Aspect

4. 1 To know how much will be the starting capital.

4. 2 To know how long the investment to be recover.

5. Socio-Economic Aspect

5. 1 To determine the contribution of these studies in the national and local economies.

5. 2 To know the changes in the economy.

## Significance of the Study

The project will give a great benefit to the following:

* To the customer, by providing a new product, that gives a variety of choices.
* To other competitors, it gives them new thoughts and ideas in the food industry.
* To the local government, a new provider of income through paying taxes.

To the students, it gives them the idea of making their own products in their study.

## Scope and Limitation

This study focuses mainly to produce jack fruit seed butter and would not be an extent to concern about the other spread products.

This study only includes market, technical, management, financial, and other socio-economic aspects of the project. The study will only focus on using jack fruit seed because the proponents have decided to make jack fruit seed butter as its initial product. The study covers a relevant range of exploration about the viability of the product. To gather the needed information, the target respondents, who are the selected customers, and the distributors of the jack fruit seed butter, were asked through survey questioners. Due prudence in making assumptions and decisions are observed so that the study will represent the real capacity of the prospected business. With all these merits, still, this study will be affected by unforeseen and uncontrollable circumstances and changes occurring in the near future. Government taxes, inflation, peso devaluation, and the condition of the country’s economy will likely change the result of the study.

Though it is geared with efficiencies, its effectiveness depends also on those that are expected to arise in theenvironment. The theoretical definition of Terms Jackfruit. is a species of tree in the mulberryfamily(Moraceae), which is native to parts of Southern and Southeast Asia. (www. wikipedia. org) A tropical tree with large oval fruit, the yellow flesh, and seeds of which are edible. (Dictionary)

Jackfruit Seeds - which appeal to all tastes, may be boiled or roasted and eaten, or boiled and preserved in syrup like chestnuts. (www. hort. purdue. edu) Spread - is a food that is spread with a knife onto bread, crackers, or other bread products. www. wikipedia. org)

Grinding mill - is a unit operation designed to break a solid material into smaller pieces. (www. wikipedia. org) Is a tool used to crush solid material unto powder or small pieces? (Dictionary)

Mixer - is a kitchen appliance intended for mixing, folding, beating, and whipping food ingredients. (www. wikipedia. org) Machine or device used for mixing. (Dictionary)

Plastic bottle - is a bottle constructed of plastic, with a neck that is narrower than its body and an opening at the top. (www. wikipedia. org) Plastic hollow necked container use for holding liquids. (Dictionary)

Cooking oils - purified fat of plant origin, which is usually liquid at room temperature. (www. wikipedia. org)

Use in cooking. It is usually a thick liquid that will not mix with water. (Dictionary) Operation definition of terms Jackfruit. this is where the researchers get their main ingredients. Jackfruit Seeds. this is the main ingredient of the product. Spread - this is the product of the researchers

Grinding mill - this is used by the researchers to grind the raw ingredients

Mixer - this is where the researchers mixed the ingredients.

Plastic bottle - this is where the researchers put the product. Cooking oil - this is used by the proponents on roasting the product.

## Chapter II Marketing Aspect

Market StudyThis chapter of the study tackles and discusses the different aspects that must be considered in entering and taking up business.

The computation and analysis of demand, supply, demand gap, supply gap, and projected sales that will help to determine the viability of the study. Implementing effective marketing strategies and programs are also included in this chapter to penetrate the target consumers that are patronizing the product. The research method of gathering data and information is also discussed in this chapter.

### Objectives

The purpose of this study is to identify the market feasibility of the said business. This section has the following objectives:

1. To determine the demand for the product.

2. To identify the price of the product to be sold.

3. To determine the promotional strategies and programs to attract the consumer.

4. To identify the market gap.

### Research Methodology

Survey questionnaires for gathering information are distributed to respondents located in Tanauan City, Batangas majorly in Barangay Sambat and Poblacion areas where the factory is nearly located. The taste test was also used by the researchers to gain some information and feedbacks.

### Subject of the Study

The proponents conducted this study to provide additional selection and taste to the increasing needs of spread in the market. JFS Spread is made available in the potential market of Tanauan City, Batangas to have a new flavor in the spreading industry that will surely benefit the consumers.

### Data Gathering Instrument

The descriptive method of research is being employed in this study. It is also used in order to answer questions concerning the current status of the subject of the study and the collection of data to formulate and test the hypothesis. The descriptive method is the most appropriate method to meet the purpose of the researchers. The use of questionnaires as a research instrument for gathering information from the respondents and theinterviewguide is used for competitors’ information and data.

### Data Gathering Procedures

The set of questionnaire was distributed by the researcher to gather some information that will help the researchers to have a guide for the product.

15 questions are given to the respondents of the study. The percentage of question no. 1 answers the question of how many consumers are taking sandwiches spread. The following questions are to determine what kind of product that is most likely by the consumer. The projection of the demand and supply are based on question no. 3 and 15. Through the taste test, the researchers gain some feedback and commented on the product and its appeals to them.

### Statistical Treatment of Data

#### Statistical Data

In order to compute for the sample size and have reliable results in gathering data, Solvin’s Formula was used.

n= N / (1 + Ne 2 ) 23469

n= 1 + 23469 (0. 05) 2

n= 393. 30

Table 1 Population of the Study

|  |  |
| --- | --- |
| Year | Population |
| 2011 | 24098 |
| 2012 | 24744 |
| 2013 | 25407 |
| 2014 | 26088 |
| 2015 | 26787 |

The proponents will provide the demand for the product in Tanauan City, Batangas majorly in Barangay Sambat and Poblasyon areas that have a growth rate of 2. 68% annually.

#### Demand

Demand refers to a consumers’ desire for a product or service with the consumers’ availability to purchase. Quantity demand is the total amount of such effectual desire in a given market with reference to a given commodity at a certain price.

#### Historical Demand

Historical Demand is the number of people that consume spread during the past years. This is based on the researchers gathered information using the question “ Do you take sandwich spread? ” which was 90. 84% positively answered by the respondents.

Table 2 Historical Demand (nearest to 220g bottles)

|  |  |
| --- | --- |
| Year | Historical Demand |
| 2005 | 18876 |
| 2006 | 19395 |
| 2007 | 19930 |
| 2008 | 20478 |
| 2009 | 20799 |

#### Major Consumers of the Product JFS

Spread will provide the demand for the product in Tanauan City, Batangas majorly in Barangay Sambat and Poblacion areas. These areas became the major consumers of the researchers due to its location which is near the factory. Knowing thecultureof the people in the said location and having a low product cost, the purchasing power of consumers would not be a factor in availing the product. Products will be distributed through retail during the first few years of its operation.

#### Projected Demand

Table 3 Projected Demand (nearest to 220g bottles)

|  |  |
| --- | --- |
| Year of Projected Demand | Total Projected Demand |
| 2011 | 1598736 |
| 2012 | 1641588 |
| 2013 | 1685580 |
| 2014 | 1730748 |
| 2015 | 1777128 |

Table 4 Relationship of Historical Demand and Supply

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Population of the Study | Historical Demand | Historical Supply |
| 2005 | 24098 | 18876 | 6336 |
| 2006 | 24744 | 19395 | 9792 |
| 2007 | 25407 | 19930 | 10368 |
| 2008 | 26088 | 20478 | 13824 |
| 2009 | 26787 | 20799 | 14688 |

Table 5 Relationship of Projected Demand and Projected Supply

|  |  |
| --- | --- |
| Year | Population of the Study |
| 2011 | 24098 |
| 2012 | 24744 |
| 2013 | 25407 |
| 2014 | 26088 |
| 2015 | 26787 |

#### Supply

Supply refers to the total number of goods or services that are available in the market place. Historical Supply Historical Supply is the total quantity of products that are sold during the past few years. The researchers gather this data through interviewing and asking the different supper markets, bakeshops, and other leading suppliers located in Tanauan City, Batangas.

Table 6 Historical Supply (nearest 220ml bottles)

|  |  |
| --- | --- |
| Year | Supply |
| 2005 | 6336 |
| 2006 | 9792 |
| 2007 | 10368 |
| 2008 | 13824 |
| 2009 | 14688 |

#### Competitors

JFS Spread is categorized under spread products and there might be a lot of indirect competitors like Mayonnaise, Cheezwiz, and Leaver Spread, JFS Spread has its confidence to compete having its own benefits and uniqueness. One of its major competitors is the Peanut Butter which is highly demandable by the consumers.

#### Projected Supply

Table 7 Projected Supply (nearest 220g bottles)

|  |  |
| --- | --- |
| Year | - |
| 2011 | - |
| 2012 | - |
| 2013 | - |
| 2014 | - |
| 2015 | - |

Projected Supply and Demand Analysis Market Share

Table 8 Projected Market Share

### Marketing Analysis

Gross market acceptability rate Gross market acceptability share is the number or percentage of consumers that will accept our market product.

Total Market Acceptability Gross market acceptability rate= Total sample size 279 = x 100 393 = 71%

To compute for the net market acceptability: = GMAR - Conservatism = 71% - 20% = 51%

### Marketing Mix

The marketing mix also is known as the 4 P's of Marketing, is the combination of product, price, place, and promotion.

Product JFS Spread is categorized as healthy spreads that will provide new taste in the spreading industry. The product brand name is derived from the name of the main ingredient which is Jackfruit Seed. It is rich in protein, vitamins C and A which are good for ourhealthand for eyesight. The need for the product is to satisfy the basic need of the consumer. Consumers are becoming conscious of what are the benefits that they can get from the product. It is expected to change the conventional spread. The product weight is 220g per bottle.

The product addresses the need for an alternative for peanut butter that has many benefits. The Jackfruit seeds help lower blood pressure because of its high potassium content. This will give a great competitive opportunity to the sandwich spreads industry.

Figure 1 JFS Spread Label Place

The researchers choose to establish the business at Barangay Sambat Tanauan City, Batangas. It is located along the highway going to Calabarzon and the supplier of raw materials are said to be near the said location. Shellane, Shell, and Vispo plastic store which serves as the primary supplier of a 220g bottle located in Tanauan City Public Market. There is also easy access to the road and Calabarzon going to Lipa where the supplier of Jackfruit seed is located.

### Promotion

JFS spread, having unique characteristics and unique ingredients; it triggers the consumers to easily recognize the product these advantages was noted and perform different marketing strategies to highly compete with other competitors.

1. Product Demonstration

A product demonstration will be done in public markets, supermarkets, and selected bakeshops where the products will be distributed and available.

2. Sampling and Taste Test

The researchers implemented this strategy at the beginning of the operation to be introduced to the consumers. It may also help the product to be known.

3. Posters, Banners, and Leaflets

Poster and banners will be posted around the target areas. This strategy is done to inform those consumers who don’t go to supermarkets.

4. Word of Mouth

Word of mouth is said to be a way of passing information from one person to another which will be a big help in promoting a product. Having a product with a good reputation will easily be known around the target area. Price Having a low cost of raw materials used, the price of the finished product would not be costly. Having this kind of advantage, the product will have a great advantage over its competitors.

## Chapter III TECHNICAL ASPECT

The technical aspect is the discussion of the basic and operational flow of the project. The technical aspect is one of the essentials of this study because this factor responds to the technicalities and basic structure of the proposed study. This includes the list of equipment, materials, structure plan, and also the source of the supplies used in the proposed project. Business plans, promotion strategies, utilities, facilities, layout designs, and locations are included in this chapter. The Product JFS Spread is categorized as healthy spreads that will provide new taste in the spreading industry. The product brand name is derived from the name of the main ingredient which is Jackfruit Seed. It is rich in protein, vitamins C and A which are good for our health and for eyesight.

The need for the product is to satisfy the basic need of the consumer. Consumers are becoming conscious of what are the benefits that they can get from the product. It is expected to change the conventional spread. The product weight is 220g per bottle. The product addresses the need for an alternative for peanut butter that has many benefits. The Jackfruit seeds help lower blood pressure because of its high potassium content. This will give a great competitive opportunity to the sandwich spreads industry.

* It is an excellent energy food that helps to prevent constipation, obesity, and contains a small number of fats.
* This may also help to prevent and treat tension and nervousness
* It can also help cure ulcers and indigestion.

Figure 2 Manufacturing Process

Table 9 Raw Materials

|  |  |
| --- | --- |
| Ingredients | 220g |
| Jackfruit Seed | 105g |
| Sugar | 84g |
| Salt | 1g |
| Vegetable oil | 30g |

### Description of the Process

A. Boil and roast the Jackfruit seed

1. Boil the Jackfruit seed
2. Roast the Jackfruit seed
3. Allow the peanuts to cool after roasting.
4. Remove seed covering

B. Add brown sugar, salt, and vegetable oil to form a mixture Jackfruit seed then is added with sugar, salt, and vegetable oil for the taste and form a mixture.

C. Put all the mixed ingredients to a food processor

1. Mixture is put to a food processor that will grind the Jackfruit seed.
2. Mix it well to make the mixture smoother.

D. Quality Control

The output is brought to the quality control department for checking for validation.

E. Bottle filling

A 220g bottle is filled with 220g of the mixture.

F. Packaging and Labeling

The bottle being field is passed to the processing and finishing department for the packaging and labeling of the product.

G. Quality control

The last and final is checking of the finished product.

Table 10 Raw Materials Requirement

|  |  |  |  |
| --- | --- | --- | --- |
| Materials | Unit | Requirements per batch | Price per batch |
| Jackfruit seed | 105g | - | - |
| Brown sugar | 84g | - | - |
| Vegetable oil | 30g | - | - |
| Salt | 1g | - | - |
| 220g bottle | 1pc. | - | - |

### Production Schedule

Total number of weeks in a year 52

Number of working days in a week 6 (Mon. – Sat. )

Total number of working days in a year 312 (52x6)

Number of Legal Holidays 23

Total number of Production Days 237

### Production Consumption

Average production per day 200 (220 g bottle)

Number of production days 237

### Factory Equipment

The researchers decided to use the following equipment like a heavy-duty stove, refrigerator, saute pan, generator, stainless containers, weighing scale, electric blender, trolleys, pallet, mini truck, company vehicle, and fire extinguisher, to be used and needed in this manufacturing business.

The equipment to be purchased as follow:

Table 11 Production Equipment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Items | Description | Quality | Unit price | Total price | Life p |
| Heavy-duty stove | Used for the brewing of the ingredients | 2 pcs. | 1, 800 | 3, 600 | 5 yrs |
| Saute pan | Used for boiling and roasting of raw materials | 6 pcs. | 500 | 3, 000 | 5 yrs |
| Refrigerator | For preservation of inventory | 2 pcs. | 5, 000 | 10, 000 | 56 yrs |
| electric blender | Used for food processing | 4 pcs. | 1, 000 | 4, 000 | 5 yrs |
| Generator | For emergency power supply | 1 pc. | 15, 000 | 15, 000 | 10 yrs |
| Fire extinguisher | Used to secure safety in case of fire | 4 pcs. | 1, 250 | 5, 000 | 10 yrs |
| Stainless container | Containers during production | 8 pcs. | 500 | 4, 000 | 5 yrs |
| Weighing scale | For accurate measure of the materials | 2 pcs. | 2, 000 | 4, 000 | 1 yr. |
| Trolley | For easy transfer of objects | 2 pcs. | 600 | 1, 200 | 5 yrs |
| Pallet | Product holder | 10 pcs. | 100 | 1, 000 | 2 yrs |
| Company vehicle | For company service | 1 pcs. | 80, 000 | 80, 000 | 10 yrs |
| Mini-truck | For the purpose of delivery and getting of raw materials | 1 pc. | 100, 000 | 100, 000 | 10 yrs |

#### Furniture and Fixtures

For making the workplace organized and well presented. The following furniture and fixtures will be needed.

Table 12 Furniture and Fixtures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Quality | Unit price | Total amount | Life p |
| Tables/ desk | 3 pcs. | 500 | 1, 500 | 5 yrs |
| Chairs | 12 pcs. | 75 | 900 | 5 yrs |
| Filling cabinet | 2 pcs. | 1, 000 | 2, 000 | 10 yrs |

#### Office Equipment

In order for the business to operate with better facilities, the following office equipment is required.

Table 13 Office Equipment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Quality | Unit price | Total amount | Life p |
| Computer (desktop) | 1 pc. | 15, 000 | 15, 000 | 5 yrs. |
| Telefax | 1 pc. | 3, 000 | 3, 000 | 10 yrs. |
| Air Con | 1 pc. | 10, 000 | 10, 000 | 5 yrs |

#### Manufacturing Supplies

Day to day operations of the business requires the following supplies:

Table 14 Production Supplies

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Quality | Unit price | Total amount |
| Laboratory gown | 6 pcs. | 100 | 600 |
| Gloves | 6 pcs. | 100 | 600 |
| Rugs | 12 pcs. | 5 | 60 |
| Hand soap | 2 pcs. | 200 | 400 |
| Hairnet | 6 pcs. | 30 | 180 |

Table 15 Office Supplies

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Quality | Unit price | Total amount |
| Bond paper | 1 ream | 150 | 150 |
| Computer ink | 1 cartridge | 120 | 120 |
| Receipts | 2 ream | 100 | 200 |
| Ballpen | 8 pcs. | 30 | 240 |
| Folder | 1 box | 150 | 150 |
| Staple wires | 5 box | 10 | 50 |
| Paper fasteners | 1 box | 30 | 30 |

#### Utilities

The business firm will need utilities in order to run and operate the business.

These include the following:

* Electricity is needed in the manufacturing process which is estimated a worth of Php 2000 in monthly consumptions which will be provided by Batangas Electric Cooperative II (BATELEC).
* Water is needed in sanitizing the equipment, working place, and food processing which is estimated worth of Php 1000 in monthly consumptions which will be provided by Tanauan Water District. Telecommunication that is needed in dealing with inquiries, additional information, product orders, communicating to suppliers, and internet connection for online advertisements which is estimated worth of Php 2000 in monthly consumptions which will be provided by Philippine Long Distance Telephone Company (PLDTco. ).
* Liquefied Petroleum Gas (LPG) in relation to the heavy-duty stove which is estimated worth of Php 3000 in monthly consumption which will be provided by Shellane.
* Fuel or Diesel for vehicle purposes which is estimated a worth of Php 8000, which will be provided by Shell. Waste Disposal As an environment – friendly business entity, zero – waste management is made by the separation of biodegradable from non-biodegradable waste.

Waste collection will be held based on the garbage collector’s schedule for collecting. A cleaning program is also implemented which cuts the production period an hour earlier for cleaning purposes.

### Plant Location

Inputting up a business entity we need to consider the following factors such as nearness to market, accessibility, water, and business supply, transportation, and leasing cost in choosing a location is the important thing that we need to study. After knowing those things, the researchers choose to establish a business at Brgy. Sambat Tanauan City.

The availability of manpower is present and the location is applicable for the business. Transportation also plays a significant role that makes the location accessible. Because it is near the market, Gasoline Station, Shellaine, Water Station, and also to the CALABARZON.

Figure 3 Plant Location

Figure 4 Factory Layout

Boiling and roasting of the Jackfruit seed Add brown sugar, salt, and vegetable oil to form a mixture Put all the mixed ingredients to a food processor NO Quality Control YES Bottle filling Packaging and Labeling Quality control Caltex Plant Location Mini stop Shellane Shell Mc DonaldsJollibeeMarket 7 eleven Tanauan Crossing GOING TO CALABARZON Inventory area Entrance 300 sq. meters Cashier Mixing Packaging Quality Control Grinding Boiling; Roasting STORE PARKING AREA