ISCTE Business School
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DIVERSIFICATION AND REDUCTION OF LOSS OF FOOD: A BUSINESS PLAN FOR PRODUCTION OF AVOCADO OIL IN KENYA FOR THE CHINESE MARKET

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Abstract

This business plan aims to provide a guidance for the production of avocado oil in Kenya for the Chinese market. On one hand, there are abundant avocados in Kenya, but most of them are consumed locally or exported as fresh fruits with a great deal of wastage. On the other hand, avocado is now new favourite in China as a nutritious fruit often referred to as the “cream in forest”.

Avocado oil is more and more popular in babies’ food supplement since the cancellation of One Child Policy. A lot of avocados produced in Kenya are sold to local markets or to the few exporters available. Those thrown unsold or rejected fruits due to size or shape are exactly excellent raw material for producing oil.

Therefore, the production of avocado oil in Kenya for the Chinese markets will be a win-win trading by decreasing food loss and creating new jobs in Kenya and, at the same time meeting the ever-growing demands of healthy food for the up middle class population in China.

Besides, agro-processing is a crucial part in the Kenya’s Vision 2030 economic plan. Producing oil from Kenyan avocado is a case of diversification of avocado products which has not been available in China so far. Hence, it is an attractive venture for a Chinese start-up to grow and fill in that niche market.

Keywords: Avocado oil, Kenya, Chinese market, Niche market
JEL Codes: New Firm; Start-up – M13

Resumo

Este plano de negócios visa fornecer uma orientação para a produção de óleo de abacate no Quênia para os mercados chineses. Por um lado, há abundantes abacates no Quênia, mas a maioria deles é consumida localmente ou exportada como frutas frescas com muito desperdício. Por outro lado, abacate é agora apreciado na China como uma fruta nutritiva, muitas vezes referida como o "creme da floresta".

O óleo de abacate é cada vez mais popular como suplemento alimentar para bebês desde a abolição da One Child Policy. Muitos abacates produzidos no Quênia são vendidos para mercados locais ou para os poucos exportadores disponíveis. As frutas descartadas ou não vendidas devido ao tamanho ou forma são excelentes matérias-primas para a produção de óleo.

Portanto, a produção de óleo de abacate no Quênia para os mercados chineses será uma negociação Win-Win diminuindo a perda de alimentos e criando novos empregos no Quênia e ao mesmo tempo, atendendo às crescentes demandas de alimentos saudáveis para a população da classe média na China.

Além disso, o processamento agrícola é uma parte crucial no plano econômico da Visão 2030 do Quênia. A produção de petróleo a partir do abacate queniano é um caso de diversificação de produtos de abacate, que até agora não estava disponível na China. Por isso, é um empreendimento atraente para uma start-up chinesa crescer e preencher esse nicho de mercado.

Palavras-chave: óleo de abacate, Quênia, mercado chinês, mercado de nicho
JEL Codes: New Firm; Start-up - M13

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1. Abbreviations

ADA	American Dietetic Association (USA)
AFA	Agriculture and Food Authority (Kenya)
CIIE	China International Import Expo (China)
CNS	Chinese Nutrition Society (China)
COFCO	China Oil & Foodstuffs Corporation (China)
EU	European Union
EPA	United States Environmental Protection Agency
FAO	Food and Agriculture Organization of the United Nations
FOCAC	Forum on China-Africa Cooperation
HCDA	Horticultural Crops Development Authority (Kenya)
IRR	Internal Rate of Return
ISO22000	2005 Food Safety Management System ISO22000:2005
KES	Kenya Shilling
Kg	Kilogram
LLC	Limited Liability Company
MT	Metric Tonne
NPV	Net Present Value
RSA	Research Solutions Africa
SE	Search Engine
UNICEF	United Nations Children's Fund
USA	United States
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VAT	Value Added Tax

2. Executive Summary

Kenya farmers face the problem of fruits waste caused by the harvest of immature avocados, while Chinese consumers are expecting more high-quality products.

In this case, a solution is proposed that avocados oil AVOCHINA is produced in Kenya directly for the Chinese market, which belongs to the edible oil industry. Nowadays olive oil and walnut oil are very popular in China with labels **Healthy products** and **Nutritious oil**, and their prices are higher than others. Compared with them, avocado oil has been reported more nutritious and fit for high temperature cooking. However, the popularity of avocado is not as much as them due to the small production.

Thus, a new factory will be set up in Kenya and adopt the cold press technology to produce extra-virgin avocado oil, which is the same with other competitors', because it is the most advanced technology to maintain the nutrition of avocados. Then, avocado oil will be sent to China in bulks for bottling, labeling and sale.

The low cost will be a competitive advantage by the effective direct connection between the factory and the targeted market, instead of going around to developed countries such as France and New Zealand. Besides, a series of marketing strategies such as free nutrition lectures, exhibitions, supermarket promotion, activities sponsor, public benefits program will be launched to advertise the avocado oil. There are 6 pilot provinces and 2 pilot cities in the first stage: **Beijing**, **Liaoning**, **Shanghai**, **Shandong**, **Jiangsu**, **Zhejinag**, **Guangdong** and **Chengdu**. At the same time, online shops are also in the plan, such as Tmall, Jingdong, Yihaodian etc..

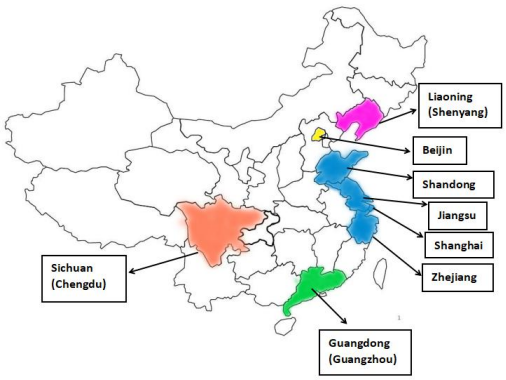


Figure 1: The 6 Pilot Provinces and 2 Pilot Cities (Beijing & Shanghai)

When it comes to the organizational plan, the flexible legal form LLC is appropriate.

Regarding the financial plan, the first financial source is my own money and a loan from the bank. AVOCHINA needs $580.719 for financing according to the calculation. $100.719 is my own money (shareholder equity), and $480.000 is a bank loan for 5 years with 5% annual interest rate.

To sum up, the business plan aims to offer a win-win solution to both Kenyan farmers and Chinese consumers, which pays to put into practice.

3. Literature Review

3.1. Entrepreneurship

“An entrepreneur is the one who always searches for change, responds to it and exploits it as an opportunity.” Peter F. Drucker defined the word ***entrepreneur*** in his book Innovation and Entrepreneurship.

An entrepreneur is characterized by risk tolerance, leadership which enable he/she to grab innovation opportunities, planning ability, good communication skills, marketing skills , management skills and strong sense of social responsibility, etc.. An entrepreneur can not only create value, but also find out effective solutions to corporate problems. He/she focus on creating value for his/her employees, customers, partners and the public as well.

There are more definitions of entrepreneur than that of entrepreneurship and entrepreneur is easier to understand because it is more concrete than entrepreneurship. Actions of an entrepreneur is a mirror of Entrepreneurship.

Ronstadt (1984) proposed that entrepreneurship is the dynamic process of creating value for some product or services which may or may not be new or unique.

According to the book Patterns of Entrepreneurship, “*entrepreneurship* is defined as the process of creating something different by devoting the necessary time and effort; assuming the accompanying financial, psychic, and social risks; and receiving the resulting monetary rewards and personal satisfaction.” Therefore, the innovative and critical thoughts are critical characteristics of entrepreneurs, which ensure them to find opportunities at the beginning stage of business, following by other four stages, “developing the plan and setting up the company, acquiring financial partners and sources of funding, determining the resources required and implementing the plan, and scaling and harvesting the venture”(Jack M. Kaplan & Anthony C. Warren, 2007).

The word *entrepreneurship* are mentioned more and more frequently nowadays because

it not only helps entrepreneurs to fulfill their dreams and contribute to the national income increase, but also promotes the social stability by creating more new jobs and stimulate global economic growth with innovation and business application. It has great impacts on the development of any economies, especially in the globalization trend.

Archie B. Carroll (1991) proposed that there are four dimensions of corporate social responsibilities: economic responsibilities, legal responsibilities, ethical responsibilities, and voluntary responsibilities. Those enterprises that take measures to balance their profits and social benefits are more likely to realize sustainable development with high customers' loyalty. Besides, the corporate culture with social responsibilities are more likely to have employees and shareholders respect.

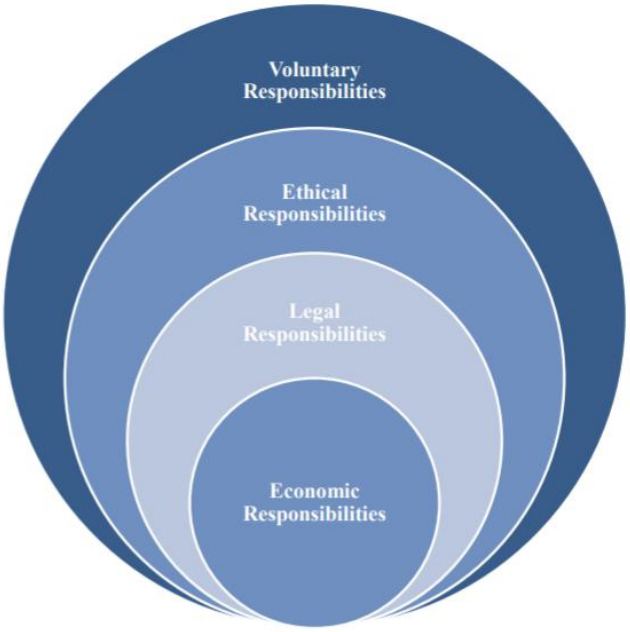


Figure 2: Dimensions of Corporate Social Responsibilities
(Archie B. Carroll, 1991)

This business plan of production of avocado oil in Kenya for the Chinese market is developed based on the guideline of entrepreneurship, which benefits both Kenyans and Chinese. It develops strategies for Kenyan avocado oil AVOCHINA to enter the Chinese market on the basis of an overall analysis of the edible avocado oil components and nutrition, the most effective way to press edible avocado oil and keep its nutrition, the the potential of using rejected avocados to press edible oil in Kenya, the competition situation, the demand of avocado oil in the Chinese market and marketing strategies.

3.2. Business Models

3.2.1. Definition and types of business models

According to Ghaziani and Ventresca (2005) , “business models” began to attract the public’s attention in the early 1970s and shone in the middle 1990s.

Business models sometimes are mistaken as profit models that are more critical for marketing and sales department than the corporate management. Though profit model is the core of a business model, it does not mean that it equals to a whole business model. “Often the term was misused, referring to the evaluation of the financial aspects of a business offer – assessing revenue streams compared to costs. However that is not what we should call a business model, but instead a business case” (Lotta Olofsson, Richard Farr, 2006). They pointed out that broaden mind and clear definition of business model give us new insights of future business environment and help to develop sustainable strategies.

Shafer et al (2005) divide business model activities into four categories: strategic choices, the value network, creating value and capturing value and suggested the definition: “A business model is a representation of a firm’s underlying core logic and strategic choices for creating and capturing value within a value network.”

Osterwalder (2005) makes a broader definition of business model. He proposed that a business model expresses the business logic of a specific firm by a set of elements and their specific relationships. It describes the architecture of a firm, its relationship capital for generating profitable and sustainable revenue streams, its network of partners for creating, marketing, and delivering value to one or several segments of customers. He tried to classify different business models by distinguishing between an activity/road approach and a value/customer-oriented approach (Erwin Fielt, 2014).

Wirtz (2011) proposes that definitions of business models developed from a technology orientation to an organization orientation to a strategic orientation.

A business model is defined as “the way a company applies knowledge to capture value”. There are five vital components of a business model: illustrate the value proposition, identify a market segment, define the value chain and resources for the firm to operate, forecast the cost and return, make the competitive strategy to build the business barrier (Kaplan and Warren, 2009).

Sayan Chatterjee defines that “ a business model is a configuration of what a business does and what it invests in based on the logic that drive profits”. He emphasized the innovation of business models and value capture mechanism, and proposed four types of generic business model as a guideline for firms at the beginning stage in Simple Rules For Designing Business Models, the operational efficiency based model, the perceived value based model, the network value based model, the network efficiency (hub) based model (Chatterjee, 2013).

Among them, perceived value based model is the most common in start-up firms and usually transferred to other types of models with the growing of business. The avocado oil of the plan is promoted by the perceived value based model. The “want” of healthier cooking oil is created by advertising activities. Meanwhile, engaging influencers such as famous mummies or nutrition bloggers to create and drive the “want” of avocado oil.

There are still many definitions about business models that have not been mentioned in this literature review. Sometimes those concepts make us confused since there are no uniform standards. However, the value creation and value capture are terms most frequently mentioned when a business model is defined, which is regarded as core of a business model. Based on systematic literature review, Erwin Fielt (2014) proposes that “a business model describes the value logic of an organization in terms of how it creates and captures customer value and can be concisely represented by an interrelated set of elements that address the customer, value proposition, organizational architecture and economics dimensions.”

When it comes to business elements and framework, the Business Model Canvas (Osterwalder & Pigneur, 2010) is most widely cited. It focuses on customer segments, customer relationships, communication, distribution and sales channels, and the value propositions and following elements must be identified: key resources, key activities,

key partnerships, revenue streams and cost structure. The Business Model Canvas provides entrepreneurs with a visual tool to make innovations and a holistic view for designing, assessing and changing business models.

The Four-Box Business Model (Johnson, 2010; Johnson et al., 2008) is similar to the Business Model Canvas. Johnson emphasizes the interdependencies between the elements regarding consistency and complementary. However, there is not much further discussion to back up that. The Business Model Canvas is mainly different from the Four-Box Business Model in that there is a separate customer module and a value propositions module in the Business Model Canvas, while the later integrates customer aspects into the value proposition box.

Although business model definition is not clear, business frameworks which integrate elements and relationships between them provide a more specific map for developing an opportunity into a business. Business archetypes are built on the basis of business frameworks. An archetype is often refer to as a business model based on a specific company example, such as the ‘low-cost carrier model’ of SouthWest Airlines (Weill & Vitale, 2001), or a specific element of a business model, such as the ‘free’ business model pattern (Osterwalder & Pigneur, 2010) for the revenue model.

There are many business models, such as Cutting out the middleman model, Collective business model, Direct selling business model, Razor and blades business model, Subscription business model, Franchise business model, Servitization of products business model, and so on. For instance, Franchise business model is a common business model, kind of collective business model, especially in fast food industry and automobile industry. McDonald’s, Subway, Starbucks are successful cases. Employees with the same uniform is one of its characteristics. Franchise share resources, products, designs, trademarks, corporate culture and so on because they copy others’ successful business models. The profit model is simple. Profits mainly come from the franchise fee that franchisees pay to franchisers.

There are several business models that AVOCHINA uses as references.

Nowadays the integration of offline (bricks) and online (clicks) resources is a very popular business model with the fast development of Internet, especially in the e-commerce industry and wholesale and retail industry. It is a Bricks and clicks business model, which is also kind of Cutting out the middleman model. Companies reach their customers via Internet and the intermediaries are removed, so the cost are decreased. Companies gain pricing advantages, and customers benefit from lower price as well. E-commerce are developed on that base. There are many successful cases of the Bricks and Clicks business model, such as Amazon, eBay, Apple, Dell, Walmart, etc.. Let's take Walmart as an example. Customers can make orders on its website and pick those goods at its local store. Walmart also provides customers with free delivery service if the purchase is in its delivery scope and reach a certain money goal. AVOCHINA will also adopt this business model by using the online distribution channels such as Tmall, Yihaodian, Jingdong and Suning.

Direct selling business model is also common nowadays. Companies such as Avon, Arbonne, Herbalife use that business model. It is defined in a textbook as "The direct personal presentation, demonstration, and sale of products and services to consumers, usually in their homes or at their jobs." Person to person selling is one of its characteristics, and personal contact plays an important role in the marketing, but it is different from Pyramid scheme business model which is quite notorious in China. Direct sale is also one of AVOCHINA's distribution strategy in small cities. However it will not be applied in the 7 pilot provisions and 1 pilot city where exclusive agencies are main distribution channels.

Servitization is one of the development trends in modern manufacturing. Servitization of products business model is a new mold of value creation that focus on intangible services-based products rather than tangible products. It shows stakeholders' responsibility in the whole consumption process by involving manufacturers, government, consumers in the commodities take-back and recycle process. The United States Environmental Protection Agency advocates product stewardship to "reduce the life-cycle environmental effects of products" from 2004, which "taps the shared ingenuity and responsibility of businesses, consumers, governments, and others." Germany administrates it very well. Deposit bottles for water and beverage is an

effective mold to decrease waste and adverse impacts on the environment. It sets a good example for AVOCHINA. All AVOCHINA extra-virgin Avocado oil charges a deposit for the glass containers and will return them when consumers return those bottles. What AVOCHINA provides is avocado oil, not bottles. Therefore, the servitization of products business model should be emphasized.

3.3. Business Plan

3.3.1. Definition and Importance

A business plan is a road map in the enterprise development. There are five general purpose of a business plan, but it most widely used for funding nowadays (Boni 2012). Therefore, the marketing and sales strategy section and the financial plan sections are most important in a whole business plan, compared with other parts. It should focus on the analysis of the demand and characteristics of the target market.

A niche market is characterized by its small size and little attraction to large companies as a small part of a big market. However, it is likely that a start-up or a new venture perform well and success in a niche market by gaining a competitive advantage with a well-designed business plan. With the improvement of market efficiency, there will be more additional niches in the future (Kaplan and Warren, 2009). Avocado oil has not been widely used in China and there are 16 brands products available in China. Therefore, avocado oil is identified as a niche market in China.

Avocado oil is a kind of plant oil extracted from avocados, which is rich in nutrition and widely used in various products such as soap, hair conditioner, face creams etc. This thesis mainly focus on edible avocado oil which is pressed from smooth fresh buttery pulps of avocados.

3.3.2. Development of Business Plans

There are 9 main steps in the planning process: recognition of planning need, setting goals, collecting the existing data, surveys for collecting new data, analysis of primary and secondary data, preparing a draft plan, getting some recommendations, implementing the plan, modifying the plan (Cooper, Fletcher, Fyall, Gilbert, and Wanhill, 2008).

The first part (Chapters 1-2) of the thesis is literature review which introduces the topic, the types of business models, the business model adopted in the business plan, the importance of the business plan and the definition of niche market.

The second part (Chapters 3) describes the solution for the problems and methods used in data collection and analysis, including such primary data as interview for farmers and dealers, visit of avocado oil factories and relative authorities, and such second data as news, website data and all kinds of reports, which lead to both qualitative and quantitative analysis results and predictions.

Face to face interviews with different players on the avocado value chain have been conducted, including 3 local distributors at the lower end of the value chain, and 3 at the up of the value chain. Interviews were undertaken in main production areas. Besides, data and key facts are sourced from the website of Agriculture and Food Authority.

The research sample is small due to limited time and budget, but provides representations of main players on the avocado value chain. Furthermore, business process is dynamic with changes at all times information due to changes of policies, environment, society, economy, technology, labor turnover etc..

The third part (Chapters 4) explains the human resources structure of the start-up with job descriptions.

The fourth part (Chapters 5) discusses the marketing strategies on the basis of the internal analysis of the start-up by using SWOT (strengths, weakness, opportunities, threats), and the external analysis of the overall context from the aspects of policies,

environment, society, technology, economy and legacy, following by the competitive analysis of Porter Five forces (the industry rivalry, the suppliers bargain power, the buyers bargain power, the substitutes threat, the new entrants, etc.), which helps to figure out the effective and efficient marketing solutions for the start-up. The market structure, players, evolution and consumer behaviors play essential role in strategies management.

The fifth part (Chapters 6) introduces the characteristics and benefits of avocado oil, the comparison of avocado oil with other edible oil, the commercial prospective and potential for growing in the China market. It also explores the marketing strategies for the China market, including the traditional business model and the internet ways, and emphasizes the importance of value-added products and brand image. It is key to the success of the business plan to develop effective strategies from the supply chain management to the development of sales channel as well as the consumers experience and maintain consumers' loyalty.

The sixth part (Chapters 7) is the financial plan, including budget and expected return with mapping of each costs and forecast profit, which is critical for capital raising.

In conclusion, the study adopts both qualitative and quantitative methods. The solution that this study offers will mainly focus on the processing avocados into edible extra-virgin oil for the Chinese market. It is expected that the products will meet the demand of the Chinese market: healthy and nutritious oil for babies, pregnancies, seniors citizens and those who pursue high-quality life.

4. The Foundation

4.1. The Problem - The need

Healthy lifestyle and consumption diversification are hot topics in China now. According to the reports of CBNData, there are four characteristics of the new consumption trend in China: **Brand**, **Health**, **Import products** and **Joy of life**. Consumers tend to pursue a healthy lifestyle with nutritious food and various sports.

Avocado oil is more and more popular in China with the glory of avocados currently on the rise. It is nutritious and fit for Chinese cuisines. However, it is very expensive in China due to small production. Some even buy from USA by Express delivery with the help of friends.

Avocado oil is good for babies, pregnancies and the seniors, which are AVOCHINA's target consumers in China. Baby boom and the traditional Chinese virtue of filial piety are the two main social and cultural factors that creates the need of avocado oil.

Natural Oil with benefits of lowering blood fat and cholesterol make them more popular among the senior citizens. The consumption of avocado oil shows a tendency to grow in the following 3 years. Rich in Omega-3 and vitamin A, D, E, avocado oil helps to keep a young and healthy heart, treat wounds, smooth sunburned skin, boost collagen products, reduce itching, inflammation and blood vessels blockage.

Regarding the supply chain, the great wastage of avocados in Kenya is also a problem. Major buyers of avocado don't accept Kenyan products because of issues such as the appearance, shape, size and matter content. For instance, the better paying markets in Europe demand for avocados of sizes 12 with a matter content of 23% which can only be achieved in controlled farming. Kenyan farmers cannot afford modern farming techniques as well as modern seedlings, which means most of the food produced is sold at the local market or thrown away to rot in the field. That is the major challenge facing Kenyan avocado farmers over the long term. It is reported that more than a third of all food produced in the world is lost after harvest. With the exception of export or

consumption as fresh fruits, the rest of avocados can be used to make a lot of products.

Farmers without contracts with certain purchase company tends to pick avocados before they are mature, which will not mature anymore once picked from trees. Those cannot be eaten, will not produce even 1% avocado oil and even cannot be used as animal food, so they will be just thrown away, as the picture shows. At the same time, Chinese market is expecting more healthy food as alternatives. If rejected avocados in Kenya can be used to make oil for foreign markets or even local markets, that will be a beautiful story.

Figure 3: The wastage of immature avocados in Kenya

4.2. The Solution - What it is been offered

Most studies in this area have focused on certain food loses leaving out others, especially losses at wholesale and retail levels, including losses at farm, during harvesting, transportation and storage. There is relatively limited research available on the avocado oil processing in Kenya for both local and foreign markets.

This study will try to figure out how to create value by meeting the need of avocado oil in the Chinese market and extend the alternatives available to the farmers while reducing pressure on farmers who must produce products of a certain kind in conformity to market demands. The key issues in this field at the moment are as follows: food storage and loss, food sustainability, food processing, food production and food marketing.

Thus, avocado oil production in Kenya targeted for the Chinese market will be a workable solution for those problems. The brand will be recognized as a Chinese brand AVOCHINA and even will be part of a bigger edible oil company in the future.

4.3. The Business Model

The business model in this case is processing avocado oil in its raw material origin and sending them directly to the target China market. The price will be more competitive since the production in Kenya is directly targeted to the Chinese market without much premium price by over advertising when compared with other brands. Furthermore, the transportation cost is reduced by shipping avocado oil directly from Kenya to China, instead of transferring them to developed countries such as France and New Zealand, and then sending to China. Meanwhile, the packaging cost including labeling, labor cost and material cost is lower than that in those countries, which is also an competitive advantage.

The price plays an important role in customers buying decision. Although avocado oil belongs to high-end edible oil and consumers are middle and upper class, reasonable lower prices will still be an attraction and it is also a reason for potential consumers to have a try, which may achieve better advertising effects of the brand with relatively low cost than offering free samples.

Regarding the supply chain, contracts will be signed with farmers to harvest mature avocados and make sure no rotten fruits are used in production. Besides, AVOCHINA offer higher introductory prices of the fruits to the farmers.

4.4. Corporate Culture

A mission statement is the first key indicator of how an organization views and realize the claims of its shareholders, and sets the guiding principles for strategies planning process.(Hill and Jones 2011)

A vision statement is the foundation for developing corporate objectives, strategy and other business activities. Good vision statements support a company by some ambitious and attainable future state that will not only motivate employees at all levels , but also drive strategies (Hill and Jones 2012).

“The value of a company state how managers and employees should conduct themselves, how they should do business, and what kind of organizations they should build to help a company achieve its mission. (Hill and Jones 2011)”

Mission

To develop our employees;
To increase Kenyan farmers’ income by fair trade;
To improve life quality of our babies, children and the seniors by providing them with high-quality organic extra-virgin avocado oil.

Vision

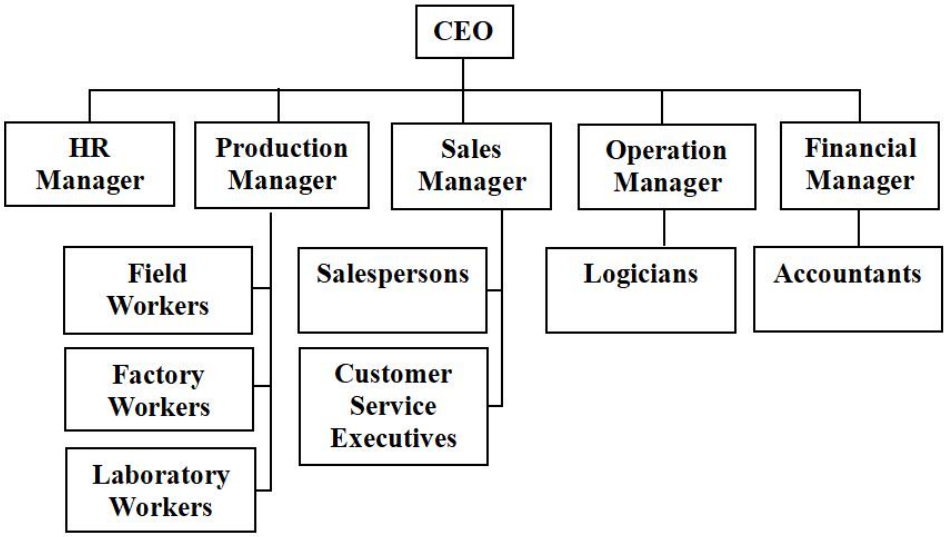
AVOCHINA aims to be the first edible avocado oil brand in China.

Values

Identity
Integrity
Fare trade
Sustainability
Strict quality control
Customer orientation

5. The Infrastructure

5.1. Organizational chart



The permanent staffs are 27, and contracted casuals range from 20-30 depending on the time of the season. The permanent staffs are mainly responsible for general management, procurement and logistic, quality control, and sales, while casual laborers are responsible for picking up avocados, sales promotion, packaging, transportation, processing and so on. The company website management and packing such as bottling and labeling are outsourcing.

5.2. Job descriptions

Jobs	Qty	Work Location	Job Descriptions
CEO	1	China	1. General Management; 2. Conducting administrative staff meetings.
HR Manager	2	Kenya China	1. Ensuring that the overall administration, coordination; 2. Making human resources plans; 3. Setting HR department goals; 4. Creating job descriptions; 5. Developing, analyzing, and updating the company's salary budget; 6. Maintaining and revising the company's handbook on policies and procedures;

			7. Conducting new employee recruitment and orientations; **8. Controlling labor cost;** **9. Conducting employees satisfaction survey.**
Production Manager	**1**	**Kenya**	**1. Equipment maintenance;** **2. Employees health and safety;** **3. Controlling production risks;** **4. Production plans and timescale;** **5. New employees training;** **6. Supply chain management;** **7. Production and quality control.**
Sales Manager	**1**	**China**	**1. Sales team training;** **2. Making and meeting sales target;** **3. Developing distribution channels;** **4. Customer relationship management;** **5. Making marketing strategies;** **6. Controlling sales risks.**
Operation Manager	**1**	**Kenya**	**1. Inventory control;** **2. Logistics management;** **3. Coordination between the production team in Kenya and the sales team in China;** **4. Conducting research and development;** **5. Establishing work standard;** **6. Assisting in procurement.**
Financial Manager	**1**	**Kenya**	**1. Making budget and financial plans;** **2. Controlling cost;** **3. Evaluating financial performance;** **4. Forecasting financial requirement;** **5. Controlling financial risks.**
Field workers	**Casuals**	**Kenya**	**Picking avocados.**
Factory workers	**8**	**Kenya**	**Producing avocado oil and packing them.**
Salespersons	**4**	**China**	**1. Conducting market researches;** **2. Negotiating with partners;** **3. Customer relationship management;** **4. Developing promotion campaigns;**
Customer service executives	**2**	**China**	**1. Developing interaction activities;** **2. Conducting customer satisfaction survey;** **3. Answering customers' questions.**
Logisticians	**4**	**Kenya**	**Transportation and shipment;**
Accountants	**2**	**Kenya** **China**	**1. Auditing procurement documents;** **2. Making financial statements;** **3. Dealing with all kinds of taxes;** **4. Assisting in the export and import work.**

6. The Context

6.1. Market Analysis - PESTEL Analysis

PESTEL analysis is a tool to analyse external macro-environmental factors and estimate their effects on the company, which consists of 6 parts: Political, Economical, Social, Technological, Legal and Environmental factors.

6.1.1. Political and Legal factors

The First CIIE will be held in November 2018 in Shanghai, which indicates the government's efforts on promoting the up-grade of consumption by bring in more high-quality and new products. Besides, the FOCAC in September 2018 in Beijing also forecast a bright future of cooperation between China and African countries.

Kenya's fresh avocados have not been permitted to enter Chinese mainland markets so far, though they have been available in Hongkong for many years. Political and legal factors still be a barrier for them, though Chinese fruits importers spare great efforts on it. Under that circumstance avocado oil can be a solution to the problem, which will not only increase incomes of Kenyan farmers and workers, but also meet the need of new products of Chinese consumers.

6.1.2. Economic factors

In Kenya most avocados are cultivated in two districts, especially in cities like Kisumu. Avocado oil deserves more attention for a range of reasons. It benefits human health with its rich nutrition. Besides, it helps to promote local economy as well.

Although GDP is a controversial indicator for a country's economy, it is still undeniable that Chinese economy keeps growing. Besides, China continues the transition to a consumption-driven economy. Those trends implicate the bright market for high-quality new products.

6.1.3. Social-cultural factors

Family union plays an important role in Chinese culture. For instance, take good care of children and respect the seniors are traditional virtues. Chinese are willing to spend money for their children and parents, especially in the nutritious food and diet supplements. So avocado oil will be an advantageous option in the Chinese market.

Besides, fry food is very common in Chinese dishes and Chinese prefer cooked food than salad. Compared with olive oil, avocado oils fit for Chinese cuisines. With the high smoke point 270 degrees centigrade, its nutrition will not be damaged in the frying process.

6.1.4. Technological factors

Cold extraction is the best way to produce high-quality edible avocado oil, while the refined extraction method is better for cosmetic oil because of the residual chemicals in the oils. The requirements of cold extraction are more restricted than those of hot extraction, and it is better than hot extraction by keeping most of avocados nutrition and no additional preservative is needed.

In this situation, avocados are pressed with controlled processing temperature under than 40 degree centigrade, and the yield is reported 50% lower than that of hot extraction. Therefore, high quality unrefined extra-virgin avocado oils come from advanced technology and strict quality control.

A totally enclosed cold extraction machine is the used to press avocados and keep its nutrition in oils. A full-closed sterile bottling machine is also used to control the quality of extra-virgin avocado oils by reducing sunlight and oxygen exposure.

The yield of avocado oil depends on fruit types and maturity. Going by the main variety i.e hass and fuerte and of full maturity i.e Dry matter of above 35%, we can recover between 15-17% oil. That is to say, for every 1000kg of pulp, we can get about 150-170kg’s of oil. That is the best we can get.

Figure 4: Hass and Fuerte avocados

6.1.5. Ecological factors

Organic food is more and more popular nowadays, so it will be advocated in the plantations and also used in the marketing strategy. Organic avocados are environmental friendly food and there is no chemicals involved in the cold extraction process.

Moreover, the glasses bottles used to package avocado oils will be collected and reused, which is part of our sustainability strategy. Non genetic modified raw material is also an ecological factor useful in the marketing strategy.

6.2. Competition Analysis - Five Forces Model of Michael Porter

6.2.1. Threat of New Entrants

With the increasing health consciousness, the threat of new entrants is increasing, including the fresh fruit export companies and new factories. Economies of scale, products differentiation and technology innovation will be effective barriers to the entry. Therefore, AVOCHINA focuses on producing avocado oil for the Chinese market and will adjust products types, package, prices with the market changes.

6.2.2. Bargaining Power of Suppliers

The following diagram 1 shows diverse value chains of avocados from farms to both domestic and foreign markets, according to the Mapping of Distributors of RSA. The export system is well organized with strong connection between clear and transparent traders and buyers. However, the domestic market is a buyers' market with many a broker and wholesaler who gain most margins by benefiting from week bargain power of small holder farmers.

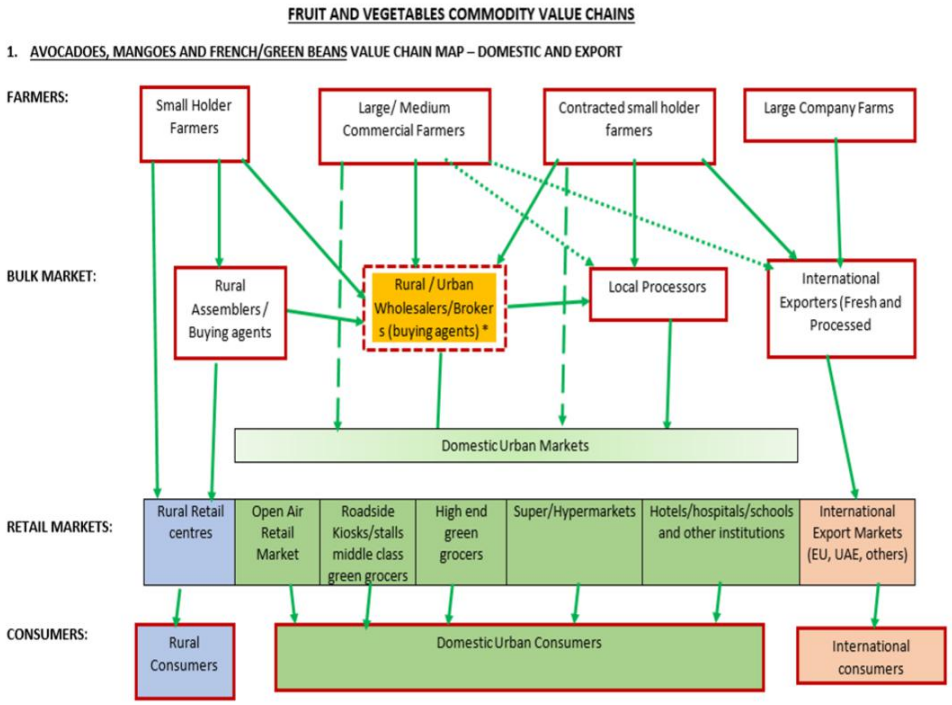


Figure 5: Current avocado value chain in Kenya (RSA)

Therefore, the new established manufactures of avocado oil will gain strong supplier

bargain power by directly collecting rejected avocados from large company farms, large and medium commercial farmers and small holder produces as well.

As the diagram 2 shows, the avocados flows into local factories directly for processing and package, and then exported to the Chinese market. The local rural and urban markets and other foreign markets will be a part of future development strategy. The retail price of big and medium avocados (400-800g) on roadside stalls is $ 0.5 (50KES) a piece in Nairobi, the capital city of Kenya. And the small one (150-300g) is $ 0.1 (10 KES), which is 29 KES in a green grocer in Junction shopping mall. According to the interview of small holder farms, the wholesale price from their farms can be lower to 5-10 KES a piece, and the wight may be up to 800g a piece.

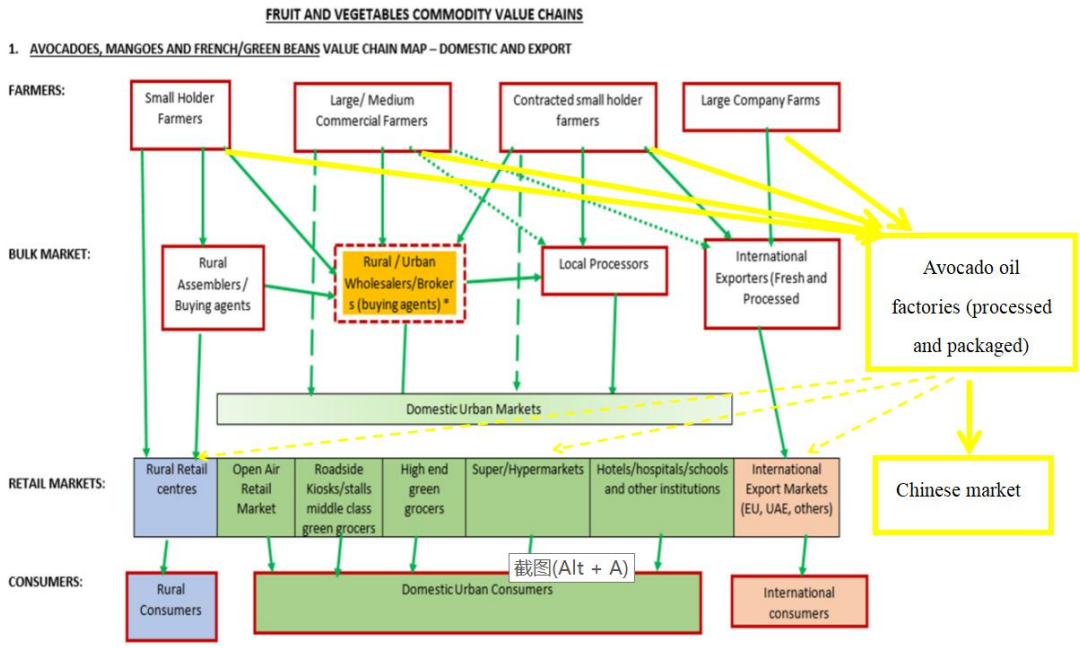


Figure 6: AVOCHINA's new avocado value chain in Kenya

It is estimated that the oil yield is about 5% to 17% for avocados, which means 1 litre oil equals to about 6-20kg avocados. On the basis of retail and wholesale prices, $ 0.9 is estimated when taking wastage into account. The raw material cost with estimated yield 10% is about $ 9 for a litre extra-virgin avocado oil as the following table shows:

Estimated average raw material cost (1 liter oil)

Weight (Size) (kg)	Retail price	Wholesale price	Estimated price (1 kg)	Estimated average price (1 kg)	Raw material quantity with 10% yield (1 liter oil)	Estimated average raw material cost (1 liter oil)
0.15 - 03	$ 0.29 (29 KES)	$ 0.1 (10 KES）	$ 1 (100 KES) (5*20KES)	**$ 0.9 (90 KES)**	**10 kg**	**$9 (900 KES)**
0.4 - 0.8	$ 0.5 (50 KES)	$ 0.25 (25 KES)	$ 0.8 (80 KES) (2*40KES)			

6.2.3. Bargaining Power of Buyers

The bargaining power of buyers is high because of increasing online shopping, few switching costs. Buyers are price sensitive and demand high quality oils will compare prices of avocados of different brands on the internet, and tend to choose the middle prices. That customers group is also the group with low brand loyalty. Although avocado oils are undifferentiated products, they still may turn to other nutritious edible oils such as walnut oil, sesame oil, olive oil and so on, if the prices of avocado oil is too high. For them, the economy and promotion pricing strategy is the best option.

However, the bargaining power of buyers who are looking for luxury alternatives is still low, because there is still no luxury packages in the Chinese market, and our high-end products AVOCHINA pro in the second development stage will be differentiated products, which is positioning as high-end gifts instead of family daily use cooking oils.

6.2.4. Threat of Substitute Products or Services

The threat of substitute products is very low, though the switching cost is low. Avocado oil is a new product with great nutrition for the Chinese market and it is reported has the highest smoke point and most fit for cooking Chinese dishes, compared with olive oil, walnut oil, coco oil etc.. Thus, avocado oil in in the growing stage of the product life

cycle. Besides, the plants types that are fit for extraction edible oil are limited, and avocado is a rising star. The novelty will be an advantage to catch consumers' eyes and keep the threat of substitute products at bay.

6.2.5. Rivalry among Existing Competitors

In 2018, the main players in the manufacturing and exporting avocado oils are Olivado, La Durangan, Rolande and Crofts. Olivado has a avocado oil factory located in Muranga which is the leading avocado production county in Kenya. Olivado is both trader and input supplier in the value chain (RSA 2015). The main importers of those oil are Germany, USA, and France. Traditional suppliers of the China market are Olivado, New Zealand brand, while La Durangan, Roland are French brand, and Crofts do OEM for a Taiwan company, which represents the main competitors. La Durangan is a strong competitor in the Chinese market. The sales of total avocado oil has increased over the years all over the world because of stronger awareness of healthy lifestyle and the advertising of benefits of avocado. The competition assessment of avocado oil in China was carried out by the quantitative method.

Best and consistence oil Quality of extra virgin avocado oil is the guarantee of internationally leading brands. However, most of them lack the after-sale service because they think that they deal with consumable products i.e food hence this is not applicable. In this case, the local marketing, sale and after-sale service team will be one of AVOCHINA's advantage. AVOCHINA hears the voices of Chinese babies' mummies.

6.3. SWOT Analysis

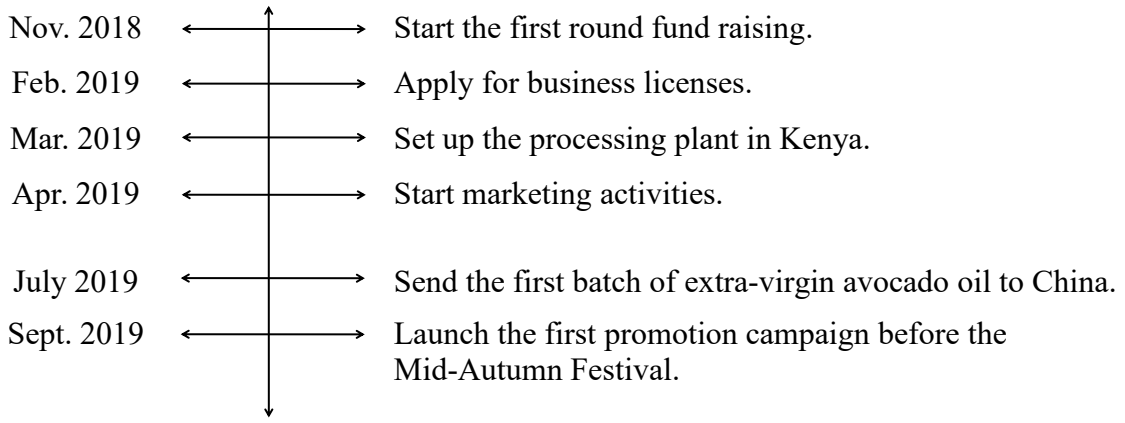
Strengths	Weaknesses
- 1) Abundant raw materials - 2) Plenty of cheap labor in Kenya - 3) Higher introductory prices of the fruits to the farmers - 4) Contracts with farmers to control the availability, cost and quality of raw materials - 5) Committed production team led by Kenyan managers and creative marketing team led by Chinese - 6) Direct delivery of avocado oil from the factory to the target market to avoid substantial transportation and logistics costs	- 1) Lack of financial resources - 2) Complicated organization, operation and licenses - 3) High marketing costs for advertising and developing new distribution channels in the first production stage
Opportunities	**Threats**
- 1) Kenyan youths' strong motivation to learn and work - 2) Growing Kenya economy with attraction of new investments and businesses - 3) China government's support for Chinese companies to invest in African countries - 4) Growing demand of avocados and avocado oil in China with the increasing consciousness of healthy lifestyle and media publicity of avocados' nutrients	- 1) Labor dispute risk - 2) Exchange rate fluctuation risk - 3) Unstable electricity and water supplies - 4) High political corruption rate in Kenya - 5) Extra logistics costs incurred by poor road conditions - 6) Increasing package material and labor prices in China - 7) Safety management of avocado oils storage and transportation - 8) Strict process of Organic, Fair Trade and ISO 22000 certifications

7. Marketing Plan

7.1. Objectives

To achieve a production of **45,000 liters** of avocado oil yearly within 3 years, which equals to the sum of 156,000 bottles of 250 ml and 12,000 bottles of 500 ml, and is processed by about 450 mt avocados, accounting for around 0.08% of total Kenya domestic avocado production.

Timeline



7.2. Target Market definition

Target market is defined as a segment of market by dividing customers into different groups according to gender, age, professions, demographics, income level, psychology, geographic, consumption habits, similar needs, wants and so on. To make our target market clear, following questions should be answered:

1) Who could be our customers?
2) How old are they?
3) What do they do?
4) Where do they live?
5) Why does our AVOCHINA avocado oil appeal to them?
6) Where do they hang out online?
7) How often do they purchase such kind of products?
8) What are their comments and complains on such kind of products online?
9) What are their expectations?

7.3. Marketing Mix Strategy

7.3.1. Product

The products continuum is divided into tangible good-dominant products and intangible service-dominant products (Hoffman and Bateson, 2010:78). Avocado oil is a product with great potential. Although it is a tangible product, marketing ideas of services proposed by Hoffman and Bateson also apply here. For example, the “basic”, “standard” and “ deluxe” services apply to products by different product packages. The basic and standard ones is for just cooking food for babies, the seniors or the whole family, while the deluxe one is bundled with some “gifts” such as dietary supplements, milk powder, wines, teas or coffees. Besides, it is also an effective advertising approach to promote the avocado oils by personal selling and word-of-mouth channel.

Only two avocado variety i.e hass and fuerte will be used to produce oil in our factory, because their characteristics are almost similar. The major classification is either organic or convectional where else organic takes the biggest portion. We have a daily capacity of 8 MT that’s avocado fruits for oil pressing though it varies depending on the time of the season, harvesting and ripening duration. This is normally seasonal basically from mid-march to around September/October.

Avocado oil itself is an added value from avocados. We can also do extra value addition with respect to different flavors such as mint etc. One competitor offer avocado oils with chili, lemon and garlic flavour. OEM is not in the first-stage development strategy, because we want to build our own brand AVOCHINA.

S.No.	Analyte	Quantity (g)	S.No.	Analyte	Quantity (g)
1.	Total sugar	0.2	11.	Vitamin B-6	0.2 mg
2.	High-monounsaturated fatty acids	6.7 g or 114 kcal	12.	Niacin	1.3 mg
3.	Sodium	5.5 mg	13.	Pantothenic acid	1.0 Mg
4.	Potassium	345 mg	14.	Riboflavin	0.1 mg
5.	Magnesium	19.5 mg	15.	Choline	10 mg
6.	Vitamin A	43 µg	16.	Lutein/Zeaxanthin	85 µg
7.	Vitamin C	6.0 mg	17.	Phytosterols	57 mg
8.	Vitamin E	1.3 mg	18.	Dietary fiber	4.6 g
9.	Vitamin K1	14 µg			
10.	Folate	60 mg			

Figure 7: Nutrients of Hass Avocado (ADA & USDA)

Fatty acid	Quantity (%)
Palmitic acid	28.21
Palmitoleic acid	5.69
Stearic acid	0.69
Oleic acid	50.95
Linoleic acid	13.87
Linolenic acid	0.58

Figure 8: Fatty Acid Composition of Avocado Oil

(Akpabio UD, Akpakpan AE etc., 2011)

The highest smoke point in the rank makes avocado oil a perfect partner both for fresh cold food like salad and fried food. When the edible oil reaches the smoke point, it will not only produce a lot of oil smoke that is harmful to human body, but also cause chemical reactions that destroy the stability of the nutrient and lead to the loss of nutrients. Edible oil with high smoke point is less likely to produce soot and trans fatty acids during cooking process, so most nutrients remain in the oil. Thus, avocado oil is the first choice for healthy living.

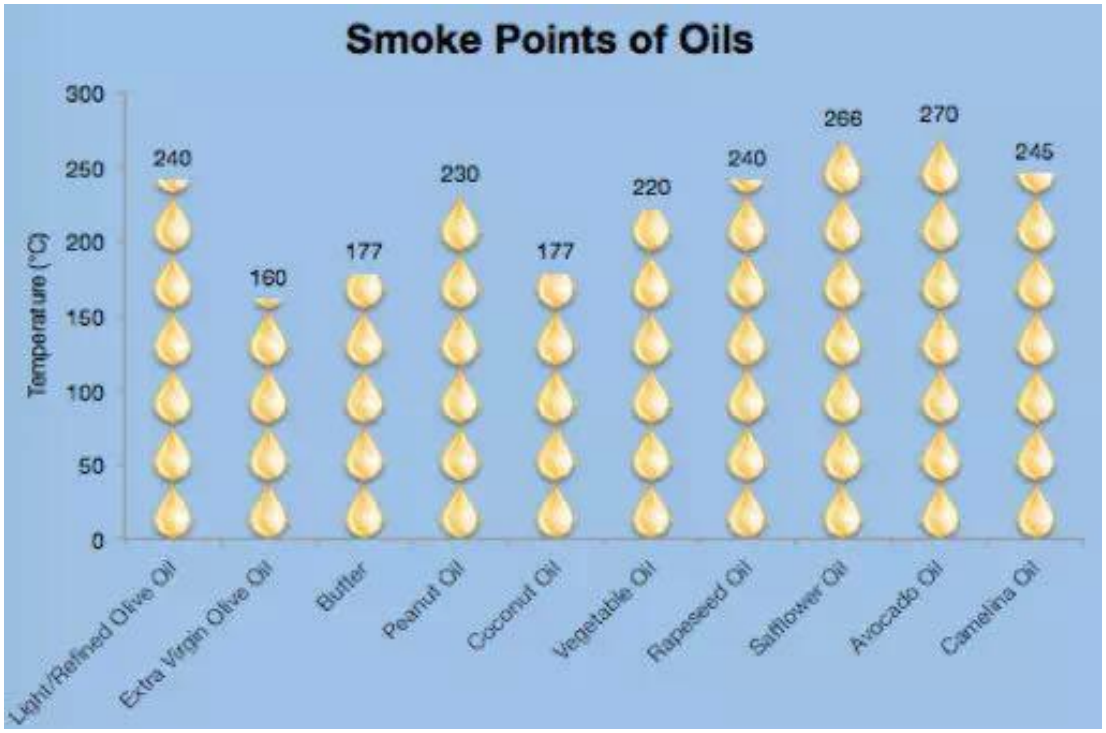


Figure 9: Smoke points of various edible oils

Table 1. Fatty acid composition of the two types of oils in three times of heating process (g/100 g fatty acids mean ± standard deviation).

	CONTROL			3 HOURS			9 HOURS		
	OLIVE[1]	AVOCADO[1]	LS[2]	OLIVE[1]	AVOCADO[1]	LS[2]	OLIVE[1]	AVOCADO[1]	LS[2]
Myristic C14:0	0.02 ± 0.00	0.06 ± 0.00^{a}	***	0.03 ± 0.00	0.06 ± 0.00^{ab}	***	0.03 ± 0.00	0.06 ± 0.00^{b}	***
Palmitic C16:0	10.24 ± 0.02^{a}	18.74 ± 0.06^{a}	***	10.34 ± 0.01^{b}	19.18 ± 0.02^{c}	***	10.56 ± 0.00^{c}	18.91 ± 0.04^{b}	***
t-Palmitoleic C16:1t	0.11 ± 0.00^{a}	0.10 ± 0.00	***	0.12 ± 0.00^{b}	0.10 ± 0.00	***	0.11 ± 0.00^{ab}	0.10 ± 0.00	***
Palmitoleic C16:1	0.60 ± 0.01^{a}	7.88 ± 0.01^{ab}	***	0.62 ± 0.00^{c}	7.85 ± 0.05^{a}	***	0.62 ± 0.00^{b}	7.94 ± 0.05^{b}	***
Stearic C18:0	3.12 ± 0.01^{a}	0.51 ± 0.00^{a}	***	3.21 ± 0.01^{b}	0.53 ± 0.01^{b}	***	3.29 ± 0.01^{c}	0.55 ± 0.01^{c}	***
Elaidic C18:1t	0.14 ± 0.01	0.29 ± 0.02	***	0.15 ± 0.02	0.34 ± 0.02	***	0.17 ± 0.02	0.33 ± 0.01	***
Oleic C18:1 (ω-9)	77.64 ± 0.03^{c}	54.40 ± 0.10^{a}	***	77.35 ± 0.02^{a}	54.69 ± 0.11^{b}	***	77.48 ± 0.02^{b}	54.46 ± 0.09^{a}	***
Vaccenic C18:1 (ω-7)	2.16 ± 0.02^{b}	5.87 ± 0.03^{b}	***	2.00 ± 0.01^{a}	5.88 ± 0.06^{b}	***	2.15 ± 0.02^{b}	5.61 ± 0.01^{a}	***
t-Linoleic C18:2t	0.03 ± 0.00^{c}	0.02 ± 0.00^{b}	**	0.01 ± 0.00^{a}	0.02 ± 0.00^{a}	***	0.01 ± 0.00^{b}	0.03 ± 0.00^{c}	***
c-t linoleic C18:1c.1t	0.00 ± 0.00^{a}	0.03 ± 0.00^{a}	***	0.04 ± 0.00^{b}	0.05 ± 0.00^{c}	***	0.06 ± 0.00^{c}	0.04 ± 0.00^{b}	***
t-c linoleic C18:1t.1c	0.05 ± 0.00^{a}	0.06 ± 0.00^{a}	**	0.05 ± 0.00^{ab}	0.07 ± 0.00^{b}	**	0.06 ± 0.00^{b}	0.06 ± 0.00^{a}	**
Linoleic C18:2 (ω-6)	4.21 ± 0.01^{b}	10.87 ± 0.01^{b}	***	4.20 ± 0.00^{b}	10.24 ± 0.03^{a}	***	3.79 ± 0.01^{a}	10.94 ± 0.04^{c}	***
Arachidic C20:0	0.31 ± 0.05	nd		0.31 ± 0.00	nd		0.32 ± 0.00	nd	
γ-linolenic C18:3 (ω-6)	0.01 ± 0.00	0.01 ± 0.00^{a}	ns	0.01 ± 0.00	0.02 ± 0.00^{c}	ns	0.01 ± 0.00	0.01 ± 0.00^{b}	**
Eicosenoic C20:1 (ω-9)	0.13 ± 0.00^{a}	0.12 ± 0.00	ns	0.15 ± 0.00^{b}	0.09 ± 0.01	***	0.15 ± 0.00^{b}	0.11 ± 0.00	***
α-linolenic C18:3 (ω-3)	0.53 ± 0.00^{b}	0.61 ± 0.00^{b}	***	0.53 ± 0.01^{b}	0.51 ± 0.01^{a}	**	0.42 ± 0.01^{a}	0.63 ± 0.00^{c}	***
Eicosatrienoic C20:3 (ω-3)	nd	0.01 ± 0.00^{b}		nd	0.01 ± 0.00^{c}		nd	nd	
Arachidonic C20:4 (ω-6)	0.63 ± 0.02^{b}	0.01 ± 0.00^{a}	***	0.61 ± 0.01^{b}	0.01 ± 0.00^{a}	***	0.50 ± 0.01^{a}	0.03 ± 0.00^{b}	***
SFA	13.71 ± 0.02^{a}	19.31 ± 0.06^{a}	***	13.89 ± 0.01^{b}	19.77 ± 0.03^{c}	***	14.20 ± 0.01^{c}	19.52 ± 0.04^{b}	***
MUFA	80.53 ± 0.03^{c}	68.40 ± 0.09^{b}	***	80.13 ± 0.02^{a}	68.55 ± 0.02^{c}	***	80.42 ± 0.02^{b}	68.15 ± 0.05^{a}	***
PUFA	5.43 ± 0.03^{b}	11.75 ± 0.02^{b}	***	5.60 ± 0.01^{c}	11.08 ± 0.06^{a}	***	4.98 ± 0.03^{a}	11.74 ± 0.06^{b}	***
ω-3	0.58 ± 0.01^{a}	0.78 ± 0.01^{c}	***	0.70 ± 0.00^{c}	0.71 ± 0.01^{b}	ns	0.60 ± 0.01^{b}	0.67 ± 0.02^{a}	**
ω-6	4.85 ± 0.03^{b}	10.97 ± 0.01^{b}	***	4.91 ± 0.01^{c}	10.36 ± 0.07^{a}	***	4.38 ± 0.02^{a}	11.06 ± 0.04^{c}	***
ω-6/ω3	8.41 ± 0.08^{c}	14.05 ± 0.15^{a}	***	7.02 ± 0.04^{a}	14.60 ± 0.22^{b}	***	7.30 ± 0.12^{b}	16.44 ± 0.41^{c}	***
PUFA/SFA	0.40 ± 0.00^{b}	0.61 ± 0.00^{c}	***	0.40 ± 0.00^{c}	0.56 ± 0.00^{a}	***	0.35 ± 0.00^{a}	0.60 ± 0.00^{b}	***
PUFA+MUFA/SFA	6.27 ± 0.01^{c}	4.15 ± 0.02^{c}	***	6.17 ± 0.01^{b}	4.03 ± 0.01^{a}	***	6.02 ± 0.00^{a}	4.09 ± 0.01^{b}	***
trans	0.33 ± 0.01^{a}	0.52 ± 0.02^{a}	***	0.38 ± 0.02^{b}	0.58 ± 0.03^{b}	***	0.40 ± 0.02^{b}	0.56 ± 0.01^{ab}	***

*[1]Within each type of oil, different letters in the same raw denote significant differences among times of analysis (p<0.05). [2]LS (level of significance of the t-student test that compares the two oils for each time of analysis): ns (not significant); p ≥ 0.05; **p < 0.01; *** p < 0.001.*
nd: not detected
SFA: saturated fatty acids; MUFA: monounsaturated fatty acids; PUFA: polyunsaturated fatty acids

Table 3. Phytosterol composition of the two types of oils in three times of heating process (mg/100 g oil mean ± standard deviation).

mg sterol/100g oil	CONTROL			3 HOURS			9 HOURS		
	OLIVE[1]	AVOCADO[1]	LS[2]	OLIVE[1]	AVOCADO[1]	LS[2]	OLIVE[1]	AVOCADO[1]	LS[2]
Campesterol	3.93 ± 0.27	18.36 ± 1.44^{b}	**	3.30 ± 0.22	14.47 ± 1.23^{a}	**	3.61 ± 0.35	14.85 ± 0.99^{a}	***
Campestanol	0.04 ± 0.03	0.43 ± 0.03^{c}	***	0.02 ± 0.01	0.28 ± 0.02^{b}	***	0.04 ± 0.00	0.04 ± 0.02^{a}	ns
Stigmasterol	0.76 ± 0.09^{a}	1.11 ± 0.12^{b}	*	1.23 ± 0.13^{b}	1.04 ± 0.21^{b}	ns	0.89 ± 0.04^{a}	0.31 ± 0.01^{a}	**
Unknown 1	1.59 ± 0.17	3.62 ± 0.08^{b}	***	1.09 ± 0.08	1.19 ± 0.83^{a}	ns	1.46 ± 0.32	1.82 ± 0.17^{a}	ns
Unknown 2	2.16 ± 0.22^{a}	30.39 ± 0.34^{c}	***	1.66 ± 0.88^{a}	1.04 ± 0.41^{b}	ns	5.52 ± 0.22^{b}	0.00 ± 0.00^{a}	***
Lanosterol	0.45 ± 0.06	0.59 ± 0.07^{b}	ns	0.39 ± 0.02	0.40 ± 0.07^{a}	ns	0.43 ± 0.03	0.41 ± 0.07^{a}	ns
Sitosterol	93.56 ± 0.26^{b}	251.07 ± 20.71^{b}	**	86.83 ± 0.99^{a}	192.19 ± 18.78^{a}	**	84.96 ± 0.34^{a}	216.63 ± 13.44^{ab}	**
Sitostanol	0.61 ± 0.02	2.19 ± 0.22^{b}	**	0.53 ± 0.06	1.52 ± 0.15^{a}	***	0.55 ± 0.08	1.38 ± 0.08^{a}	***
Δ5 Avenasterol	10.68 ± 0.85	9.42 ± 1.69	ns	9.19 ± 0.74	7.38 ± 0.91	ns	10.11 ± 0.93	7.93 ± 0.69	*
α-amyrin	1.56 ± 0.14^{a}	0.13 ± 0.02^{b}	**	1.42 ± 0.12^{a}	0.00 ± 0.00^{a}	**	1.31 ± 0.10^{a}	0.00 ± 0.00^{a}	***
Lupeol+gramisterol	0.40 ± 0.05	1.78 ± 0.24^{b}	**	0.32 ± 0.01	0.89 ± 0.23^{a}	*	0.36 ± 0.04	1.38 ± 0.17^{b}	**
Δ7 sitosterol	3.78 ± 0.19^{b}	2.82 ± 0.39^{c}	*	3.28 ± 0.15^{a}	1.26 ± 0.47^{b}	**	3.75 ± 0.25^{b}	0.07 ± 0.06^{a}	***
Cycloartenol	43.69 ± 3.29	16.08 ± 5.55	***	39.71 ± 2.99	14.18 ± 2.24	***	41.02 ± 0.58	16.60 ± 1.50	***
Cycloeucalenol	1.37 ± 0.16	0.30 ± 0.02^{b}	**	1.27 ± 0.05	0.00 ± 0.00^{a}	***	1.27 ± 0.04	0.00 ± 0.00^{a}	***
Δ7 avenasterol	0.48 ± 0.03^{b}	0.30 ± 0.04^{c}	**	0.36 ± 0.03^{a}	0.16 ± 0.04^{b}	**	0.43 ± 0.06^{ab}	0.08 ± 0.00^{a}	*
Unknown 4	nd	0.08 ± 0.00^{c}		nd	0.02 ± 0.01^{b}		nd	nd^{a}	
Unknown 5	nd	6.55 ± 0.10^{c}		nd	0.74 ± 0.30^{b}		nd	nd^{a}	
24-Methylenecycloartanol	56.98 ± 3.77	1.13 ± 0.01	***	51.98 ± 4.13	1.01 ± 0.29	**	50.75 ± 0.43	0.75 ± 0.11	**
Unknown 6	nd	0.30 ± 0.07^{b}		nd	nd^{a}		nd	nd^{a}	
Citrostadienol	5.61 ± 0.54^{b}	9.03 ± 1.83^{b}	*	4.53 ± 0.06^{a}	3.36 ± 0.60^{a}	ns	5.24 ± 0.25^{ab}	8.31 ± 0.67^{b}	**
Total Phytosterols	228.27 ± 2.18^{b}	339.64 ± 4.88^{c}	***	206.83 ± 2.44^{a}	240.96 ± 25.38^{a}	*	210.30 ± 1.11^{a}	270.44 ± 17.70^{b}	*

Figure 10: Comparison of fatty acid composition and phytosterol composition between olive oil and avocado Oil

(Izaskun Berasategi & Blanca Barriuso etc., 2008)

The figure 10 shows that the sitosterol component in avocado oil is about 251mg per 100g oil, 3 times of that in in olive oil (about 94mg). The rich sitosterol in avocado oil helps to decrease the bad cholesterol in blood and the risks of blood vessels blockage. So it is better than olive oil.

7.3.2. Price

Pricing strategy plays an important key in the company revenue and profits. It aims to set an optimal price for a product or service by taking various internal and external factors into account, such as production and distribution costs, competitor products prices, target customers and consumers expecting and so on.

On the one hand, sales must be affected adversely by higher prices than the normal standard of the industry if the segment is the low-end market. On the other hand, the business will not be sustainable if the prices is too low. Therefore, it is critical to make a good pricing strategy.

There are 6 main pricing strategies: pricing at a premium, pricing for a market penetration, economy pricing, price skimming, psychology pricing, bundle pricing. Premium pricing is often used for unique goods in the early stage of a product' s life cycle. It is fit for the avocado oil targeted for the high-end market, such as luxury package. The correspondent placement is high-end food shop with good decoration and professional salesmen, such as wine shops which sell foreign foods, like expensive wines, liquors, hams, cheese etc.. Economy pricing strategy is effective for prices-sensitive customers who prefer products with high performance to price ratio. It is widely used in large-scale companies such as the discount retailer Wal-Mart and some budget airlines like Ryanair and Easyjet. Our standard products without frills adopt that strategy. Moreover, odd pricing is an effective strategy on the basis of psychology. It will be adopted in making the retail market prices for the end shops.

The profits vary form industry to industry. Generally speaking, there is about 50% for manufactures and retailers, and 30% for dealers. Based on that, 250ml AVOCHINA is priced $15.8 ($63.2 per Kg) in retail and $10 (including VAT) for wholesale, which is a competitive price lower than the average market price (around $ 87 per kg) compared with the main competitor Grove. 500ml AVOCHINA is priced $26 ($52 1kg) in retail and $16 for wholesale. Most avocado oil in the Chinese market are imported from trader countries instead of production countries directly, so AVOCHINA aims to fill that gap market.

The Brands and Prices of Avocado Oil in the Online Shop **Tmall (tmall.com)**

(The brands are ranked in the descending order of **Estimated Retail Price Per Liter $**)

	Brands	Capacity (ml)	**Tmall $ (CN¥) Exchange rate 7**	**Estimated retail price per liter $ (CN¥)**	Accumulated sales volume (bottle)
1	PHILIPPEVIGEAN (German brand; made in France)	100 ml	$ 22.6 (¥ 158)	**$ 226** (¥ 1580)	10
2	Brändle (Germany)	250 ml	$39.7 (¥ 278)	**$158.9** (¥ 1112)	1
3	**Latourangelle (France)**	**250 ml**	**$ 28.3 (¥ 198)**	**$ 113 (¥ 792)**	**165 (+2800 in Suning)**
4	**Roland (France)**	**250 ml**	**$ 26.9 (¥ 188)**	**$111.7 (¥ 752)**	**765**
5	Lapalisse (France)	250 ml	$ 25.4 (¥ 178)	**$ 101.7**(¥ 712)	70
6	**GROVE (New Zealand)**	**250 ml**	**$18.3 (¥ 128)**	**$ 73.1 (¥ 512)**	**2696**
7	BAJA PRECIOUS (USA)	750 ml	$ 29.7 (¥ 208)	**$ 39.7** (¥ 278)	33
8	Aiyingtao (Black Seasame+ avocado oil) (China)	80ml*3	$14.1 (¥ 98.8)	**$ 58.9** (¥ 412)	82
9	DNZ (New Zealand)	500 ml	$ 28.3 (¥ 198)	**$ 56.6** (¥ 396)	14
10	**Olivado (New Zealand)**	**500 ml**	**$ 24.1 (¥ 169)**	**$ 48.3 (¥ 338)**	**101**
11	ACEITEMEX (Mexico)	500 ml	$ 18.3 (¥ 128)	**$ 36.6** (¥ 256)	11
12	Spectrum (Refined oil) (USA)	236 ml	$ 5.7 (¥ 40)	**$ 24.3** (¥ 170)	59
			Average retail price 1 liter	**$ 87.4**	6807

Figure 11: The 12 Avocado Oil Brands in the Online Shop Tmall (tmall.com)

The Brands and Prices of Avocado Oil in the Online Shop **Yihaodian (YHD.COM)**

(The brands are ranked in the descending order of **Estimated retail price per liter** $)

YHD.COM	Brands	Capacity (ml)	**Yihaodian $ (CN¥) Exchange rate 7**	**Estimated retail price per liter (CN¥)**	Accumulated sales volume (bottle)
1 VIGEAN	PHILIPPEVIGEAN (German brand; made in France)	100 ml	$ 22.6 (¥ 158)	**$ 226** (¥ 1580)	6
2 Brändle	Brändle (Germany)	250 ml	$ 34 (¥ 238)	**$ 136** (¥ 952)	2
3 Roland	**Roland (France)**	**250 ml**	**$ 26.9 (¥ 188)**	**$ 107.4 (¥ 752)**	**410**
4	**Latourangelle (France)**	**250 ml**	**$ 26.6 (¥ 186)**	**$ 106.3 (¥ 744)**	**3100**

5	SANLUCAS	1000 ml	$ 48.3 (¥ 338)	**$ 48.3** (¥ 338)	11
	(USA)	250 ml	$ 21.1 (¥ 148)	**$ 84.6** (¥ 592)	10
6	**GROVE**	**250 ml**	**$ 18.3 (¥ 128)**	**$ 73.1 (¥ 512)**	**10921**
	(New Zealand)				
7	**Morning-DewDew**	**250 ml**	**$ 18.3 (¥ 128)**	**$ 73.1 (¥ 512)**	**400**
	(New Zealand)	**500 ml**	**$ 32.6 (¥ 228)**	**$ 65.2 (¥ 456)**	**200**
8	LOMBARDI	500 ml	$ 31.1 (¥ 218)	**$ 62.3** (¥ 436)	4
	(USA)				
9	DNZ	500 ml	$ 28.3 (¥ 198)	**$ 56.6** (¥ 396)	300
	(New Zealand)				
10	Olivado	500 ml	$ 28.4 (¥ 199)	**$ 48.3** (¥ 338)	10
	(New Zealand)				
11	CHOSEN FOODS	500 ml	$ 14 (¥ 98)	**$ 28** (¥ 196)	100
	(Mexico)	1000 ml	$ 27 (¥ 189)	**$ 27** (¥ 189)	102
			Average retail price 1 liter	**$ 87.7**	15576

Figure 12: The 11 Avocado Oil Brands in the Online Shop Yihaodian (YHD.COM)

The following matrix shows the competitive positioning of main brands in the industry. The horizontal axis represents the price level and the vertical axis indicates the differentiation which is measured by indicators packaging, innovation and range of products and value-added by-products. The point of pain of consumers is the high price of avocado oil. Therefore, the positioning strategy of AVOCHINA is to provide them with low price while high quality extra-virgin avocado by means of economies of scale and high-level cost control, and then penetrate the market and build the brand image.

Figure 13: Competitive positioning matrix for main competitors in the industry

The chart shows the retail price in the China market of small packaging (250ml) of the the main competitors in the industry, so 250ml AVOCHINA's market retail price is set as **RMB￥109**, about **$15.8**.

1	**Grove**	New Zealand	**$ 18.3**
2	**Latourangelle**	France	**$ 27.5**
3	**Roland**	France	**$ 26.9**
4	**Morning-DewDew**	New Zealand	**$ 18.3**
5	**AVOCHINA**	China	**$ 15.8**

7.3.3. Promotion

Mexico and Peru are Kenya's main competitors in the global market. However, quality of Kenya avocados is more premium because the sufficient sunshine and stable temperature (about 12-25 degrees centigrade) promote the photosynthesis through out the year. Besides, the pesticide is less used in Kenya. Avocado is **not genetic modified fruit**, and the organic certificate will also be selling points in marketing(Appendices tables 1-8). The AVOCHINA avocado oil is produced in Kenya in bulks and sent to China for bottling, labeling and packaging, and the promotion team is in China.

Setting Forms of Promotion:

- Advertising

① Online advertising. For example, News and stories about avocado nutrition and recipe with avocado oil are updated everyday online to maintain customers loyalty on such social networks as **WeChat official account**, **blog** and **Weibo**. Besides, advertise on attractive websites and video platforms.

② Attending some exhibitions and fairs

③ Cooperating with some charity groups and donate some of the revenue to help children to get nutritious food in distant areas

④ Designing some packages with some high-end products such as milk power or wines in certain festivals such as Mid-Autumn Festival, Spring Festival

⑤ Holding some free cooking course or lectures for pregnant women or mothers to advertise avocado oil

⑥ Advertising on local newspapers and food magazines

⑦ Promotional gifts (free samples and other materials

- Sales promotion

Avocado oil is different from olive oil in that avocado oil produce a light cream smell while olive oil produce a little bit spicy grass flavor, so avocado oil is more preferred by babies. Apart from that, the vitamin A, B, C, D, E of avocado oil is four times more than that of same amount of olive oil. Avocado oil is full of nutrition as a fruit oil. The rich omega 9 helps to anti-inflammation and the development of nervous system, mentality and vision as well. It can also lower the risk of atherosclerosis, cardiovascular diseases and stroke. Avocado is free of cholesterol, and low of sugar and starch.

- Public campaigns

Set up a program which aims to increase the life quality of children by provide them with enough food and nutrition. For example, $ 1 will be saved in that program account when a bottle of avocado oil is bought, then the saving will be used in a transparent way with feedback of children and communities.

- Sponsorship

Sponsorship of avocado oil is workable for some cooking competition, cooking program and health guidance program.

7.3.4. Placement

Edible avocado oil is placed as an alternative to such common cooking oil as peanut oil, olive oil, sunflower oil, canola oil, flax seed oil and so on. In the first stage, AVOCHINA uses as many as distribution channels to penetrate the Chinese market.

- Wholesale traders
- Retailers
- Supermarkets
- Health food stores
- High-end hotels and restaurants
- Pharmacies
- Confinement centers
- Mother and baby goods stores
- Online stores such as **Jingdong**, **Tmall**, **Yihaodian**, **Suning**
- Others (Events, fairs, exhibitions, households...)

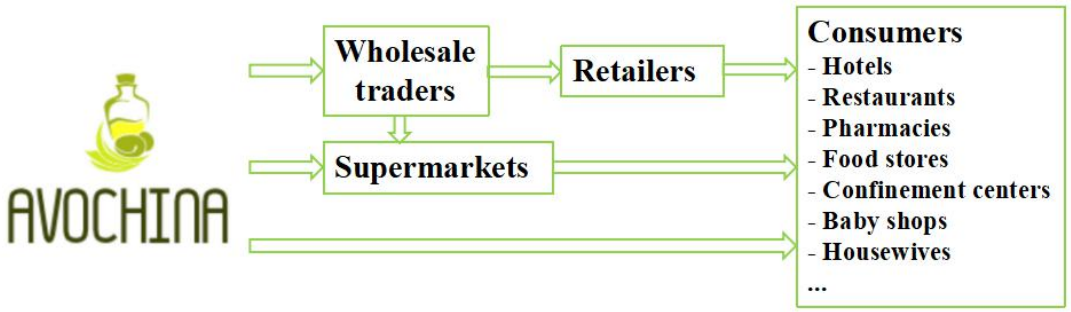


Figure 14: Different distribution channels of AVOCHINA avocado oil

7.3.5. People

According to the *Chinese Children Development Atlas 2014* 《中国儿童发展图集2014》, the five necessary mineral components play important roles in the children development. The lack of **mineral iron** and **vitamin A** is a common problem for Chinese children, which leads to the high incidence of anemia. As a result, those children with anemia perform more poorly than their healthy peers in the cognition and sports. Data of the national food and nutrition monitor shows that the anemia rate of rural children under 5 years old is 13.3%, and 28.2% of children 6 to 12 months.

It is proofed that the children malnutrition begins from pregnancy. The shortage of mineral iron of pregnant women will increase the risks of babies' diseases. The effectiveness has been illustrated that the Chinese government takes nutrition intervention measures for rural pregnant women and children by the practice of nutrition supplements (nutrition bag).

It is reported that the vitamin A of avocado oil is four times more than that of same amount of olive oil. Furthermore, avocado oil is rich in unsaturated fatty acid and folic acid with little sugar and zero cholesterol. The natural fatty promotes the absorption of fat soluble vitamins such as vitamin A, vitamin E, carotinoid and lutein as well. Thus, it is a wise choice for pregnant women and babies to consume avocado oil instead of salad sauce and other oils.

As previous analysis, target customers are pregnant women and mothers. Besides, the rich Omega 3 is a necessary fatty acid that can not be made in human bodies and it is crucial in the development of brain and vision of babies. DHA is an import component in Omega 3 which is famous in china now thanks to the advertisement of mike Wangzai. Furthermore, Omega 3 can prevent disease relative to cardiovascular systems, skin, joints, depression, inflammation and so on. However, high temperature will damage Omega 3. Therefore, avocado oil is recommended for salad for the purpose of Omega 3.

The avocado is named 牛油果，鳄梨，酪梨，油梨，奶油果 in China. Therefore, information related to searching has been collected on Index Baidu.com. Information of 牛油果油，鳄梨油，酪梨油 are available, while 油梨油，奶油果油 have not been recorded as an term in that database. (Appendices tables 9-24)

The rank of regions, provisions and cities are calculated on the basis of the data of Index Baidu.com. It shows that East district rank first, following by North and South Districts. East district includes provisions such as Jiangsu, Shanghai, Shandong, Zhejiang. The most important cities are Shanghai and Hangzhou according to the data of Index Baidu.com. The center of north part is Beijing, the capital city of China. And Guangdong is the most developed southern provision with two metropolitans Guangzhou and Shenzhen, which are considered as the first tier cities in China. Therefore, the target cities of avocado oil should be **Beijing, Shanghai, Hangzhou, Guangzhou, Shenzhen. Chengdu and Shenyang**, the last two in the rank, can be the target markets of the expansion strategy.

7.3.6. Physical evidence

The main color of the label will be green and white, which not only shows the characteristics of avocados, but also leaves consumers impression of sanitary, health and vitality. Some consumers complain that the mouth is too big to control the quantity for a baby's meal. The solution is to make a small mouth as follow: adding a small drainage in the bottle mouth (figures 11). The physical appearance of the edible avocado oil is clear pale yellow or light green in colour.

We do bulk packaging for every oil type which its either in 900kg package or 200 kg drums for every oil. According to the consumers' comments online, glasses bottles should be used for expensive oils such as olive oil and avocado oil. So AVOCHINA avocado oil is put in dark brown glass bottles (figures 11), which not only indicates high quality products, but also prevent the plastic solvent pollution and light damage. 250ml is the most popular volume of avocado oil.

Figure 15: AVOCHINA products physical evidence

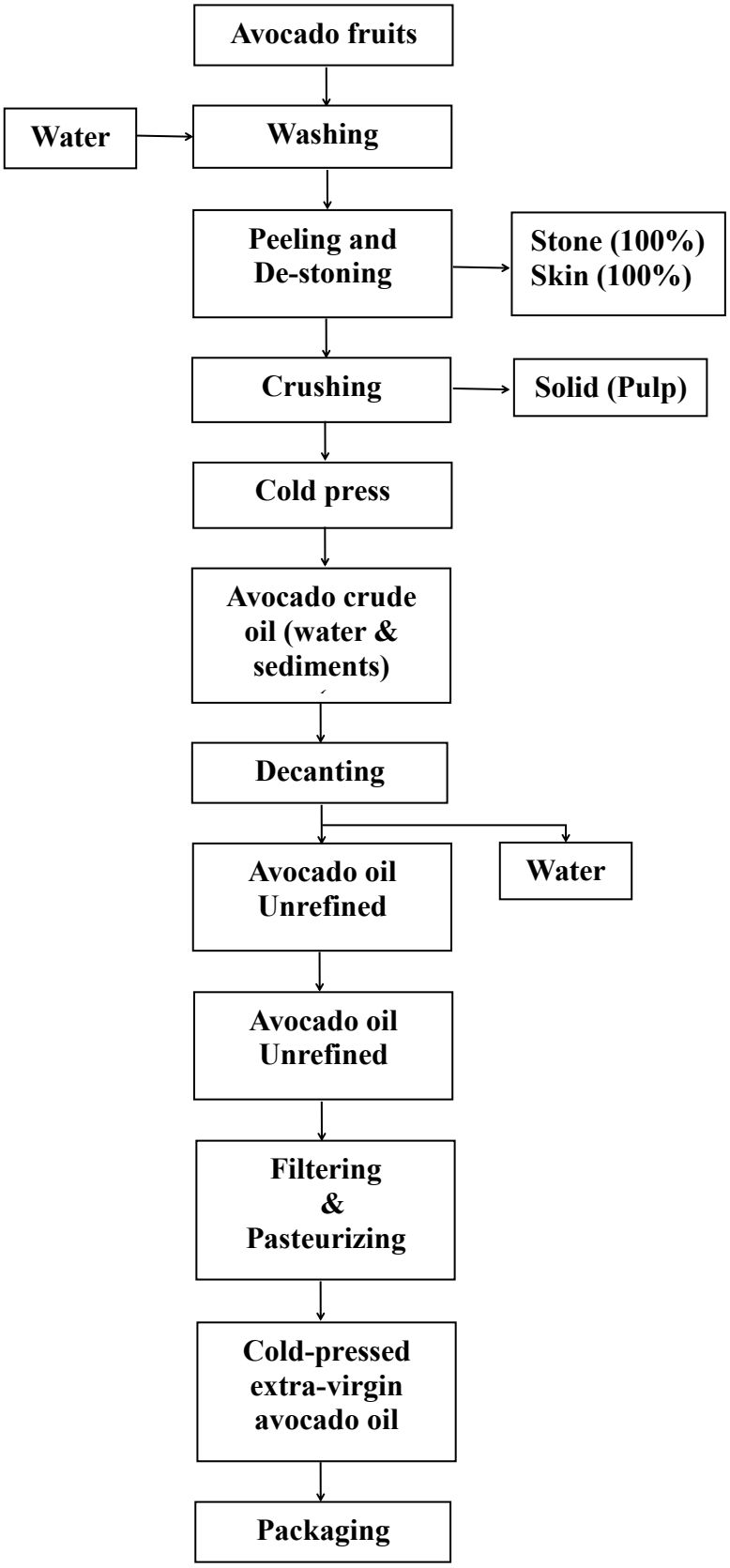
7.3.7. Process

1. Sign contacts with farmers in 8 counties in Kenya to make sure avocados are only picked when they are mature. The fresh avocados has to be delivered to the factory on the same day of harvesting. During the peak season, harvesting is done daily except on Sundays. We will pay our contracted farmers 7 days after harvesting via mobile money transfer/sacco accounts. Besides, it ensure enough raw material for production, high quality of raw material and controlled price.During the research, a small factory was found using rotten avocados to produce oil, which is immoral and illegal as well.

2. Cold press technology is adopted to produce extra-virgin avocado oil, because it is the most effective way to maintain its nutrition. It is estimated that 96% of avocados in process are mature and only approximately 4% or less are from pack house rejects which are not mature as such. Fruits maturity, ripening conditions are the crucial things to monitor. Oil recovery/yield should be optimized by proper machine maintenance. Besides, frequent staffs training must be emphasized.

3. Extra-virgin avocado oil will be sent to China in bulks for bottling and labeling. At the same time, gift sets will be launched for festivals such as Spring Festival, Mid-Autumn Festival, Mother's Day and some banquets that celebrate the birth of babies or the longevity of seniors.

Figure 16: AVOCHINA's production value chain map



8. Financial Plan

The analysis is the estimation of investments required, sales and revenue, and profits in the following five years. The financing needs and the sources of finance are my own money and a bank loan. AVOCHINA needs total $580.719 for financing according to the calculation. $100.719 is my own money (shareholder equity), and $480.000 is a bank loan for 5 years with 5% annual interest rate.

8.1. Operating Plan

8.1.1. Investments required on capital expenditures

Investment								
Investment per year		**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	
Fixed Tangible Assets								
Land + Natural Resources		30,000.00	0.00	0.00	0.00	0.00	0.00	
Buildings + other constructions		50,000.00	0.00	0.00	0.00	0.00	0.00	50,000
Basic equipment		250,000.00	0.00	0.00	0.00	0.00	0.00	250,000
Transport equipment		15,000.00	10,000.00	1,000.00	0.00	0.00	0.00	26,000
Administrative equipment		10,000.00	7,000.00	1,000.00	0.00	0.00	0.00	18,000
Other fixed tangible assets		8,000.00	2,000.00	1,500.00	1,500.00	1,500.00	1,500.00	16,000
Total Fixed Tangible Assets		**363,000**	**19,000**	**3,500**	**1,500**	**1,500**	**1,500**	390,000
Intangible assets								
R&D projects		500.00	600.00	800.00	800.00	800.00	800.00	4,300
Software		1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	6,000
Other Intangible Assets		1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	6,000
Total Intangible Assets		**2,500**	**2,600**	**2,800**	**2,800**	**2,800**	**2,800**	16,300
Biological Assets		0.00	0.00	0.00	0.00	0.00	0.00	0
Total Investment		**365,500**	**21,600**	**6,300**	**4,300**	**4,300**	**4,300**	**406,300**

Depreciatin + Amortization rates		**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	NET Book Value
Fixed Tangible Assets								
Buildings + other constructions	2.00%	1,000	1,000	1,000	1,000	1,000	1,000	44,000
Basic equipment	20.00%	50,000	50,000	50,000	50,000	50,000		0
Transport equipment	25.00%	3,750	6,250	6,500	6,500	2,750		250
Administrative equipment	25.00%	2,500	4,250	4,500	4,500	2,000	2,000	-1,750
Other fixed tangible assets	25.00%	2,000	2,500	2,875	3,250			5,375
Intangible assets								
R&D projects	33.333%	167	367	633				3,133
Software	33.333%	333	667	1,000				4,000
Other Intangible Assets	33.333%	333	667	1,000				4,000
Total Amortizations		**60,083**	**65,700**	**67,508**	**65,250**	**55,750**	**3,000**	**59,008**

Accumulated		60,083	125,783	193,292	258,542	314,292	317,292
VAT Deductible	23.00%	77050	4830	1265	805	805	805

8.1.2. Revenues

Final sale price
(without VAT)

Sales	Year 1	Year 2	Year 3	Year 4	Year 5
250 ml	7.70	7.70	7.70	7.70	7.70
500 ml	12.32	12.32	12.32	12.32	12.32
	0.00	0.00	0.00	0.00	0.00
Total	**20.02**	**20.02**	**20.02**	**20.02**	**20.02**

Monthly quantities	12	Number of months of activity in 1st year

Sales	Year 1	Year 2	Year 3	Year 4	Year 5
250 ml	13,000	13,000	13,000	13,000.000	13,000.000
500 ml	600	700	1,000	1,000.000	1,000.000
0	0.000	0.000	0.000	0.000	0.000
Total	**13,600.00**	**13,700.00**	**14,000.00**	**14,000.00**	**14,000.00**

Total

Sales	Year 1	Year 2	Year 3	Year 4	Year 5
250 ml	1,201,200.00	1,201,200.00	1,201,200.00	1,201,200.00	1,201,200.00
500 ml	88,704.00	103,488.00	147,840.00	147,840.00	147,840.00
0	0.00	0.00	0.00	0.00	0.00
Total	**1,289,904.00**	**1,304,688.00**	**1,349,040.00**	**1,349,040.00**	**1,349,040.00**

VAT Liquidated	296677.92	300078.24	310279.2	310279.2	310279.2

Value per product

Cost of goods sold + consumed material	Year 1	Year 2	Year 3	Year 4	Year 5
250 ml	2.87	2.87	2.87	2.87	2.87
500 ml	5.12	5.12	5.12	5.12	5.12
0	0.00	0.00	0.00	0.00	0.00
Total	**484,584.00**	**490,728.00**	**509,160.00**	**509,160.00**	**509,160.00**

VAT Deductible	111454.32	112867.44	117106.8	117106.8	117106.8

8.1.3. Payroll Expenses

Employee salaries:

Personnel costs	12	Number of months of activity in 1st year				
Number of months		12	14	14	14	14
Annual increase (salary + lunch allowance)		0%	2.00%	2.00%	2.00%	2.00%
Staff		Year 1	Year 2	Year 3	Year 4	Year 5
CEO		1	1	1	1	1
HR Manager		2	2	2	2	2
Production Manager		1	1	1	1	1
Sales Manager		1	1	1	1	1
Operation Manager		1	1	1	1	1
Financial Manager		1	1	1	1	1
Accountants		2	2	2	2	2
Factory workers		8	8	8	8	8
Salespersons		4	4	4	4	4
Logicians		4	4	4	4	4
Field workers		21	22	23	24	25
Customer service executives		2	2	2	2	2
TOTAL		48	49	50	51	52
Monthly salary (gross)		Year 1	Year 2	Year 3	Year 4	Year 5
CEO		$1,800	$1,800	$1,800	$1,800	$1,800
HR Manager		$1,000	$1,000	$1,000	$1,000	$1,000
Production Manager		$1,000	$1,000	$1,000	$1,000	$1,000
Sales Manager		$1,500	$1,500	$1,500	$1,500	$1,500
Operation Manager		$1,000	$1,000	$1,000	$1,000	$1,000
Financial Manager		$1,000	$1,000	$1,000	$1,000	$1,000
Accountants		$800	$800	$800	$800	$800
Factory workers		$500	$500	$500	$500	$500
Salespersons		$1,300	$1,300	$1,300	$1,300	$1,300
Logicians		$600	$600	$600	$600	$600
Field workers		$400	$400	$400	$400	$400
Customer service executives		$800	$800	$800	$800	$800
Annual Salary - TOTAL		Year 1	Year 2	Year 3	Year 4	Year 5
CEO		21,600	25,704	26,218	26,742	27,277
HR Manager		24,000	28,560	29,131	29,714	30,308
Production Manager		12,000	14,280	14,566	14,857	15,154
Sales Manager		18,000	21,420	21,848	22,285	22,731
Operation Manager		12,000	14,280	14,566	14,857	15,154
Financial Manager		12,000	14,280	14,566	14,857	15,154
Accountants		19,200	22,848	23,305	23,771	24,246
Salespersons		62,400	74,256	75,741	77,256	78,801
Field workers		100,800	125,664	134,004	142,626	151,541

Customer service executives		19,200	22,848	23,305	23,771	24,246
TOTAL		**301,200**	**364,140**	**377,249**	**390,737**	**404,613**
Other costs		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Social Security	34.75%					
Company bodies	23.75%	5,130	6,105	6,227	6,351	6,478
Staff	23.75%	66,405	80,379	83,370	86,449	89,617
Insurance	1%	3,012	3,641	3,772	3,907	4,046
Lunch allowance Euros / day	4.27	49,600	51,646	52,700	53,754	54,808
TOTAL Other costs		**124,147**	**141,771**	**146,069**	**150,462**	**154,950**
TOTAL Personnel costs		**425,347**	**505,911**	**523,319**	**541,198**	**559,563**

8.1.4. Operational Expenses

Suppliers + Service providers (total annual)	Year 1	Year 2	Year 3	Year 4	Year 5	VAT	% variable
Subcontractors of specific activities of business	600.00	600.00	600.00	600.00	600.00	23%	100%
Accounting	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00	23%	0%
Cleaning	1,800.00	1,800.00	1,800.00	1,800.00	1,800.00	23%	0%
Security	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00	23%	0%
Logistics/transport	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	23%	0%
Lawyers	1,800.00	1,800.00	1,800.00	1,800.00	1,800.00	23%	10%
Rent	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	23%	0%
Electricity	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	23%	10%
Water	6,000.00	6,600.00	6,960.00	6,960.00	6,960.00	6%	0%
Natural gas	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00	23%	0%
Fuel	14,400.00	14,400.00	14,400.00	14,400.00	14,400.00	23%	0%
Communications (incl. Internet)	2,400.00	2,400.00	2,400.00	2,400.00	2,400.00	23%	10%
Tools + utensils	12,000.00	12,000.00	12,000.00	12,000.00	12,000.00	23%	10%
Office supplies	960.00	960.00	960.00	960.00	960.00	23%	10%
Representation expenses	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00	23%	10%
Conservation and repairs	2,400.00	3,000.00	3,600.00	3,600.00	3,600.00	23%	10%
Publicity	2,400.00	2,640.00	3,000.00	3,000.00	3,000.00	23%	10%
Insurance	1,440.00	1,440.00	1,440.00	1,440.00	1,440.00	23%	0%
Royalties	960.00	960.00	960.00	960.00	960.00	23%	10%
Litigation + notary	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00	23%	0%
Other services	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00	23%	0%
Total	84,360.00	85,800.00	87,120.00	87,120.00	87,120.00		
VAT Deductible	18382.8	18612	18854.4	18854.4	18854.4		

8.2. Income Statement

Proforma results

Project Name		Year 1	Year 2	Year 3	Year 4	Year 5
Sales		1,289,904	1,304,688	1,349,040	1,349,040	1,349,040
Costs						
Cost of Goods sold		484,584	490,728	509,160	509,160	509,160
Suppliers and service providers		84,360	85,800	87,120	87,120	87,120
Personnel costs		425,347	505,911	523,319	541,198	559,563
Sub Total		994,291	1,082,439	1,119,599	1,137,478	1,155,843
EBITDA		295,613	222,249	229,441	211,562	193,197
Amortization		60,083	65,700	67,508	65,250	55,750
Total Costs		1,054,375	1,148,139	1,187,107	1,202,728	1,211,593
Earnings before Interest and Tax		235,529	156,549	161,933	146,312	137,447
Cost of Financing		24,000	14,400	9,600	4,800	0
Earnings before Taxes		211,529	142,149	152,333	141,512	137,447
Taxes	19%	40,191	27,008	28,943	26,887	26,115
Net Earnings		171,339	115,141	123,390	114,624	111,332

8.3. Cash Flow Statement

Project cash flow	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
Cash flow from operations		250,862	192,505	198,674	183,762	167,082	*2,458,490*
Investment in Fixed assets	365,500	21,600	6,300	4,300	4,300	4,300	*-273,492*
Investment in Working Capital	215,219	-16,624	6,239	-377	-271	-271	*-203,916*
Total Investments	580,719	4,976	12,539	3,923	4,029	4,029	-69,576
Total Cash Flow	-580,719	245,886	179,965	194,751	179,733	163,053	2,388,915
Accumulated Cash-Flow	*-580,719*	*-334,833*	***-154,867***	*39,883*	*219,617*	*382,669*	*2,771,584*

8.4. Working Capital and Cash Requirements

		Days	Year 0	Year 1	Year 2	Year 3	Year 4
Expected sales	*Clients*	365	1,289,904	1,304,688	1,349,040	1,349,040	1,349,040
Cost of goods sold and materials consumed	*Suppliers*	365	484,584	490,728	509,160	509,160	509,160
Suppliers and service providers	*Suppliers*	365	84,360	85,800	87,120	87,120	87,120

	Working Capital Needs	Definition	Calculation	Days	Year 0	Year 1	Year 2	Year 3	Year 4
	Cash & Banks	% sales		5%	64,495	65,234	67,452	67,452	67,452
+	Credit to clients	Days given to clients for payment		30	106,020	107,235	110,880	110,880	110,880
+	Average duration of materials in stock	Quantity of inventory in value that is necessary to sell according to plan		90	119,486	121,001	125,546	125,546	125,546
−	Credit to Suppliers	Days that suppliers extend credit		30	46,763	47,386	49,009	49,009	49,009
	Public Sector	Days for paying VAT, Social security and Taxes			28,020	47,490	50,035	50,411	50,682
	Working Capital Needs				**215,219**	**198,595**	**204,834**	**204,458**	**204,187**
	Working Capital Investment Needs				**215,219**	**-16,624**	**6,239**	**-377**	**-271**

Operational financial cycle	*Days*	*79*	*74*	*74*	*74*	*73*

Cash requirements	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Origin of funds	**580,719**	**250,862**	**209,129**	**198,674**	**184,139**	**167,353**
Operational cash flow	0	250,862	192,505	198,674	183,762	167,082
Shareholder equity	100,719					
Financing obtained	480,000					
Disinvestment in Working Capital		0	16,624	0	377	271
Application of Funds	**580,719**	**397,009**	**143,708**	**145,083**	**131,987**	**126,415**
Investment in fixed capital	365,500	21,600	6,300	4,300	4,300	4,300
Investment in Working capital	215,219	215,219	0	6,239	0	0
Tax on Earnings		40,191	27,008	28,943	26,887	26,115
Loan payback		96,000	96,000	96,000	96,000	96,000
Financial costs		24,000	14,400	9,600	4,800	0
Annual cash balance	**0**	**-146,147**	**65,420**	**53,592**	**52,152**	**40,938**
Accumulated cash balance	**0**	**-146,147**	**-80,727**	**-27,135**	**25,016**	**65,954**

8.5. Valuation with Net Present Value technique

Net Present Value	1, 510, 348
Internal rate of Return	49. 1%
Discount rate	10%

Supposing that the growth rate of cash flows in perpetuity after year 5 is 3%, which means that cash flows will grow after year 5 for 3% for ever.

Internal Rate of Return (IRR) is a financial measure used to evaluate projected cash flow results and to compare the feasibility of a project or investment. It is generally used with other financial measures such as Net Present Value (NPV). In the AVOCHINA cold-pressed extra-virgin avocado oil project, the NPV is 1,510,348, and the IRR is 49.1%, so it is worth the investment.

9. Conclusion

The quantity of rejected avocados in Kenya is rising because of the increases in production and export demands. Those fruits will be good raw material for edible avocado oil in the future. At the same time, there is great growth in the demand of avocados in the China market as well as other healthy products, so there is unexploited demand of avocado oil in the Chinese market with the increasing consciousness of healthy lifestyle and the advertisement of avocado nutrients.

Production in Kenya has the advantage of low cost of raw material and labor. Besides, Once avocados are processed into oil, they are easier to transport and storage, which decrease the lost during transportation and storage. Furthermore, the market teams are all Chinese who are familiar with local markets so they can develop marketing strategies fit for the Chinese market. In conclusion, the avocado oil possesses large potential and it pays to explore the strategies to promote it.

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11. Annexes

Table 1: Production of Avocados in selected Counties 2012-2014 (AFA: Horticulture Validated report 2014)

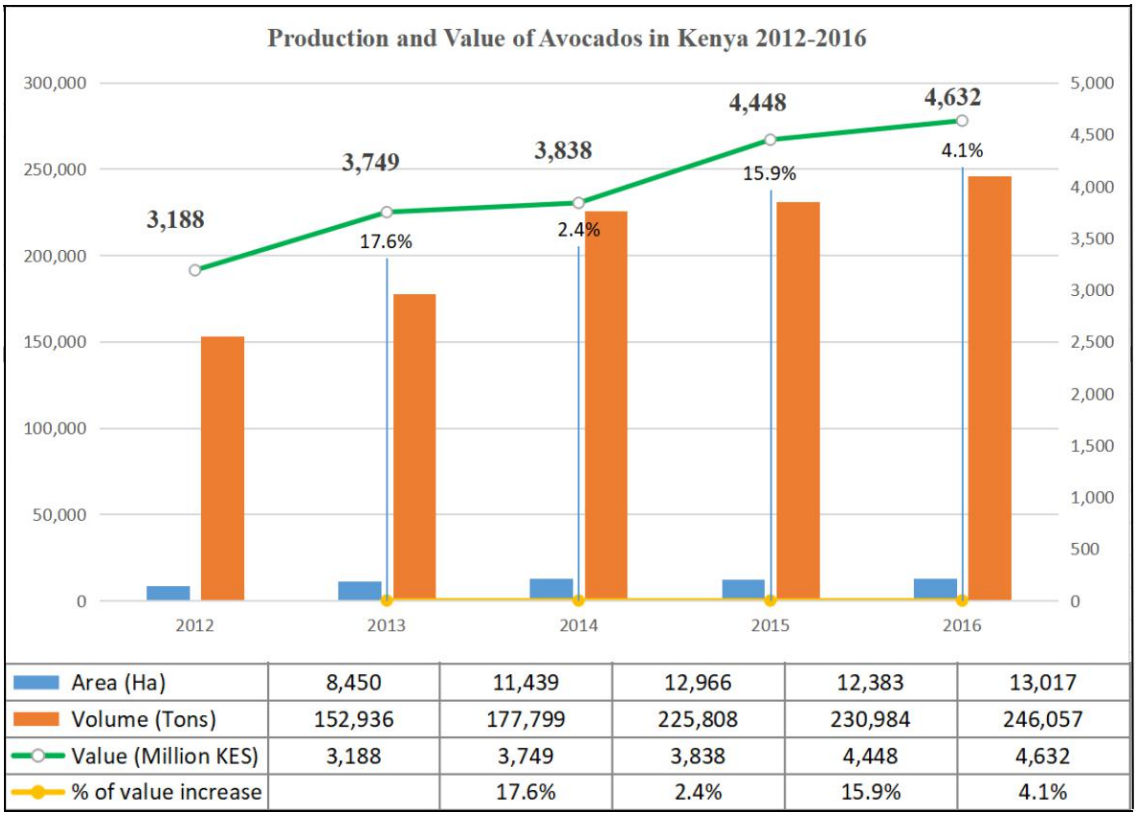
County	2012			2013			2014		
	Area (Ha)	Volume (MT)	Value (Million KES)	Area (Ha)	Volume (MT)	Value (Million KES)	Area (Ha)	Volume (MT)	Value (Million KES)
Nyamira	441	9,846	85	460	10,172	263	2,633	52,140	777
Bungoma	1,350	18,228	1,262.9	2,058.0	20,476.0	669.9	1,623	20,006	734
Murang'a	1,328	30,085	208	1,344	28,095	243	1,393	29,553	456
Kisii	912	15,451	228	924	15,766	240	936	15,526	232
Kiambu	637	14,286	240	639	13,706	212	639	13,706	212
Kirinyaga	238	8,512	123	261	8,912	135	261	8,458	168
Nyeri	234	3,906	48	219	3,925	49	285	3,753	65
Embu	230	7,650	50	229	7,645	61	230	7,807	63
Meru	498	4,056	38	528	4,478	46	452	4,500	60
Makueni	206	1,338	38	210	1,456	56	252	2,668	53
Others	2,376	39,578	867	4,567	63,168	1,774	4,262	67,691	1,018
TOTAL	**8,450**	**152,936**	**3,188**	**11,439**	**177,799**	**3,749**	**12,966**	**225,808**	**3,838**

Table 2: Production of Avocados in selected Counties 2015-2016 (AFA: Horticulture Validated report 2015-2016)

COUNTY	2015			2016			% of Total Value
	AREA (HA)	VOLUME (Tons)	VALUE(KES)	AREA (HA)	VOLUME (Tons)	VALUE(KES)	
Murang'a	4,309	112,510	2,320,318,000	4,310	118,356	2,438,827,000	**52.6**
Kisii	1,744	27,068	336,612,220	1,519	29,383	487,573,500	**10.5**
Kiambu	633	10,247	331,956,000	677	12,382	407,352,500	**8.8**
Nyamira	1,185	25,600	300,580,000	1,454	24,435	198,640,199	**4.3**
Machakos	350	4,294	203,880,000	519	4,172	112,439,000	**2.4**
Vihiga	191	5,219	86,870,300	196	6,039	103,284,667	**2.2**

Kirinyaga	444	5,459	99,406,000	422	5,023	100,172,000	**2.2**
Bungoma	321	3,606	102,600,000	266	4,275	78,103,900	**1.7**
Migori	307	3,340	56,419,560	297	3,365	72,589,182	**1.6**
Meru	469	4,581	60,319,101	458	4,671	66,462,112	**1.4**
Elgeyo Marakwet	159	2,065	60,670,000	276	2,477	58,821,600	**1.3**
Taita Taveta	143	902	17,063,700	174	4,739	43,870,900	**0.9**
Kericho	105	1,827	65,544,968	76	1,413	43,073,750	**0.9**
Kakamega	143	2,003	35,432,906	164	2,112	40,096,000	**0.9**
Nandi	95	1,496	34,948,025	123	1,718	39,485,375	**0.9**
Bomet	229	2,622	77,553,000	209	2,602	35,055,000	**0.8**
Others	1,557	18,146	257,550,795	1,877	18,896	306,608,172	**6.6**
TOTAL	**12,383**	**230,984**	**4,447,724,575**	**13,017**	**246,057**	**4,632,454,856**	**100.0**

Table 3: Production and Value of Avocados in Kenya 2012-2016



Area (Ha)	8,450	11,439	12,966	12,383	13,017
Volume (Tons)	152,936	177,799	225,808	230,984	246,057
Value (Million KES)	3,188	3,749	3,838	4,448	4,632
% of value increase		17.6%	2.4%	15.9%	4.1%

Table 4: Production share of Avocados by region (Average 2012-2016)

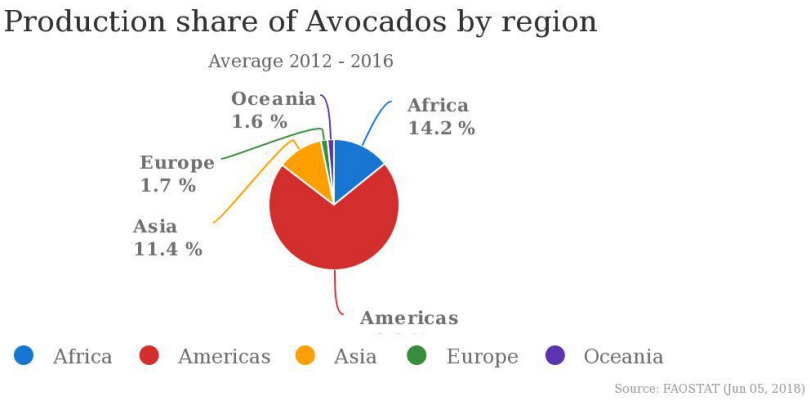


Table 5: Production of Avocados: top 10 producers

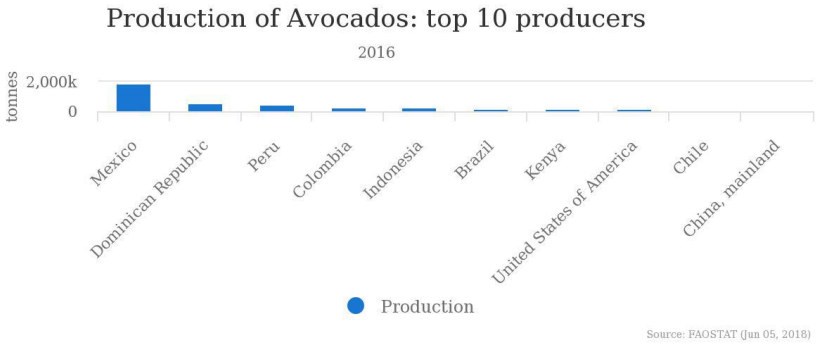


Table 6: Production/Yield quantities of Avocados in World

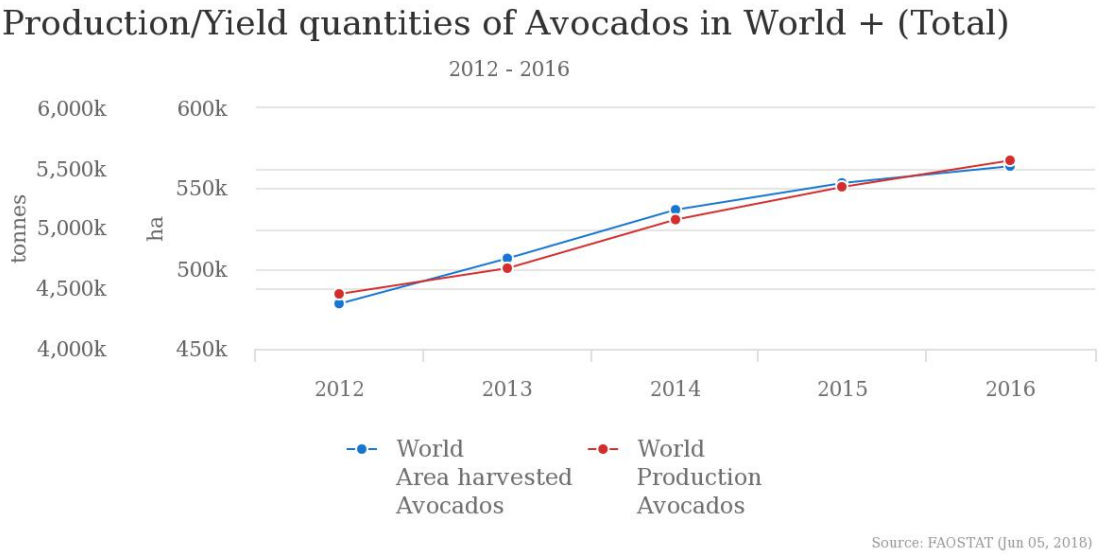


Table 7: Different Data of Two Institutes on Kenya Avocado Production (2012-2016)

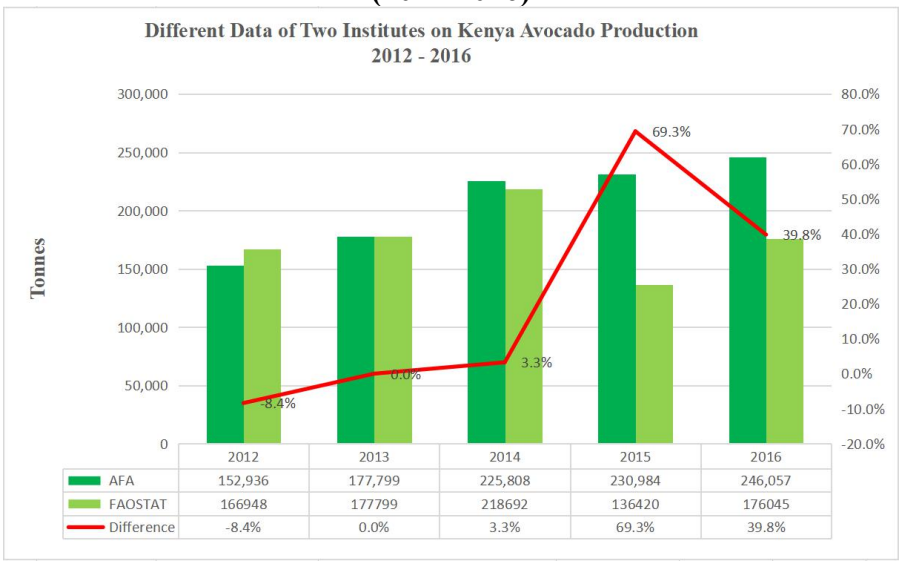


Table 8: Production of Avocados: top 10 producers 2016 (source: FAOSTAT)

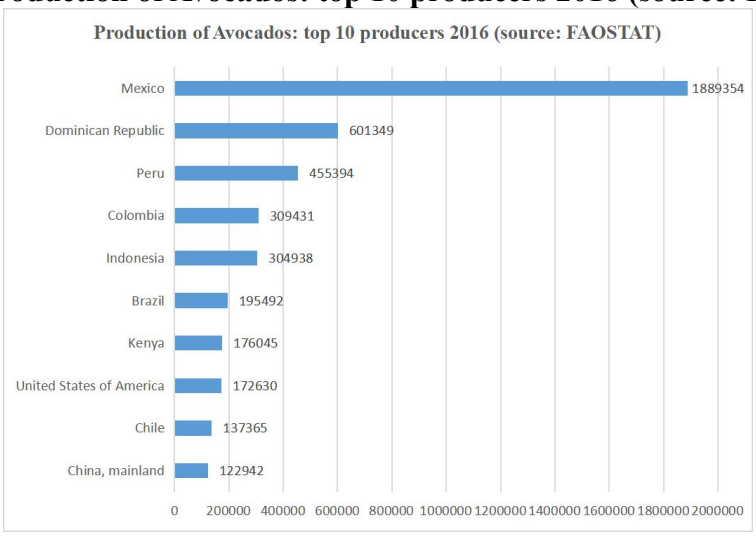


Table 9: Click rate of the Key word “牛油果油”
1/1/2018-7/6/2018 Source：Baidu Searching Index

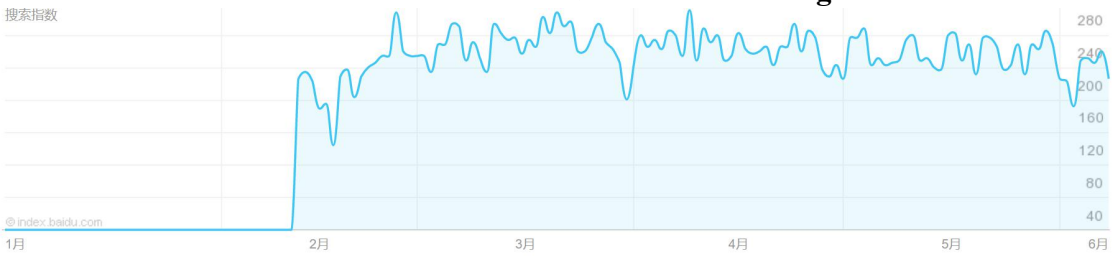


Table 10: The rank of provinces in searching the key word “牛油果油”

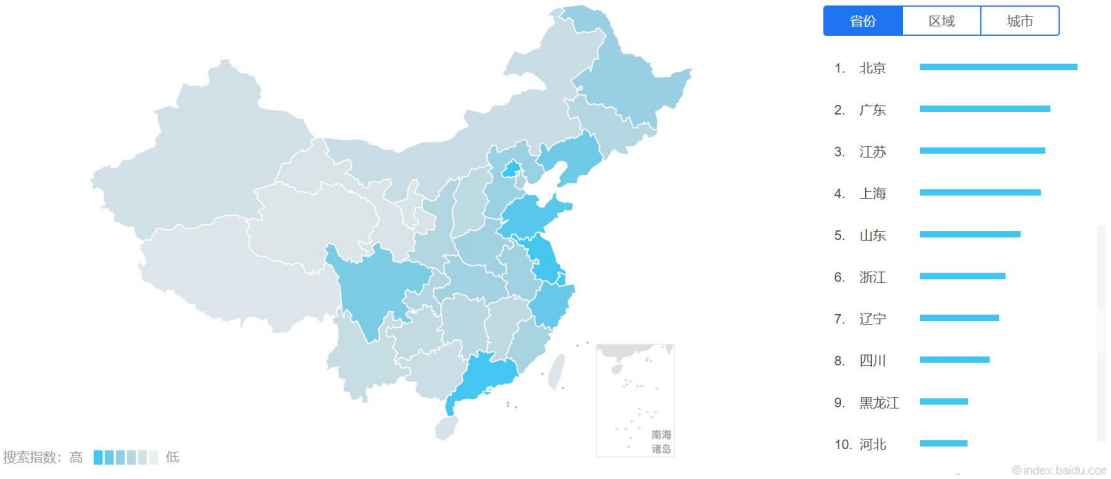


Table 11: The rank of regions in searching the key word “牛油果油”

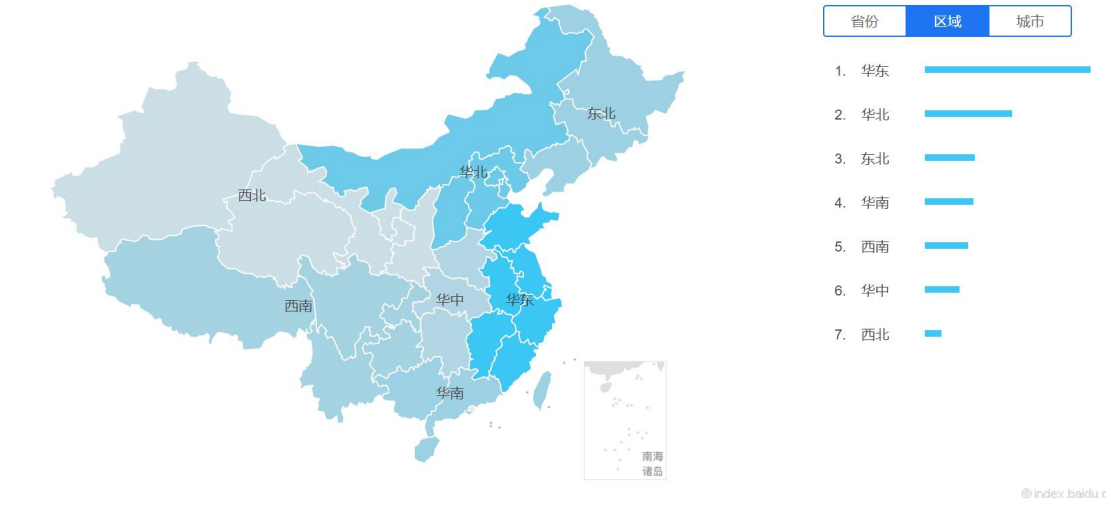


Table 12: The rank of cities in searching the key word “牛油果油”

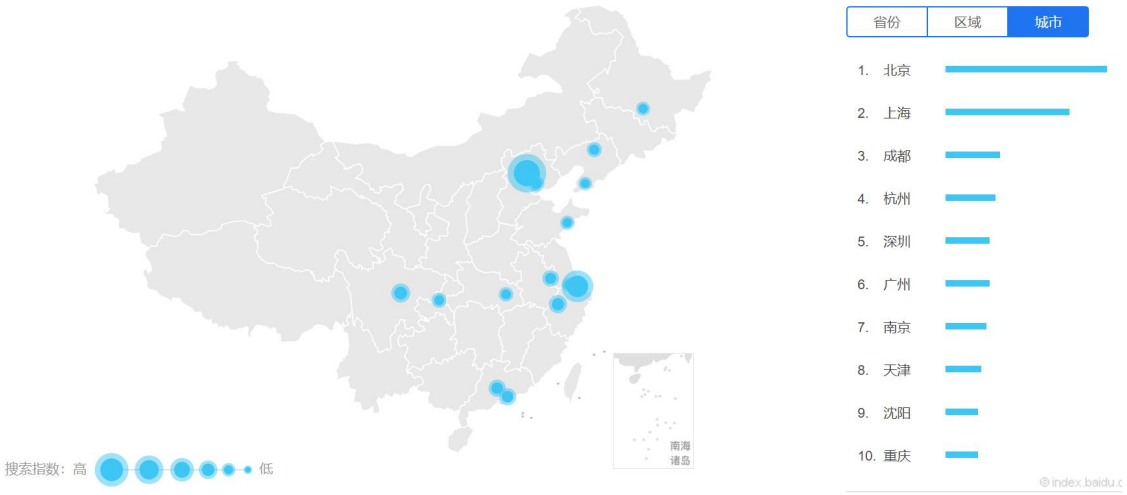


Table 13: Target customers age and gender rate

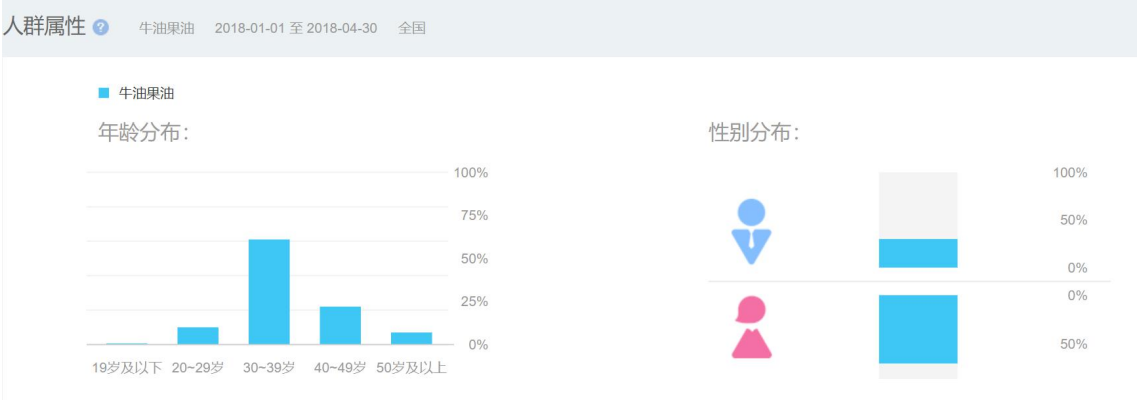


Table 14　Click rate of the Key word “鳄梨油”
1/1/2011-7/6/2018　Source：Baidu Searching Index

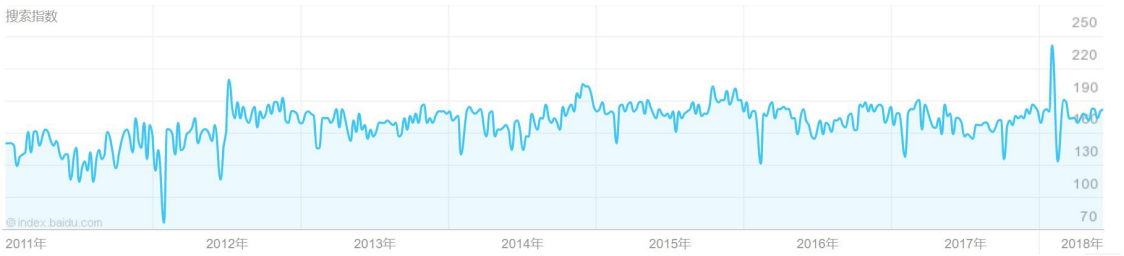


Table 15: Click rate of the Key word “鳄梨油”
1/1/2018-7/6/2018　Source：Baidu Searching Index

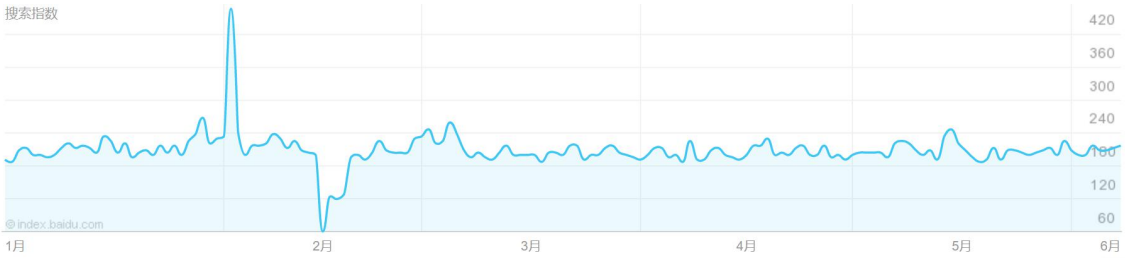


Table 16: The rank of provinces in searching the key word “鳄梨油”

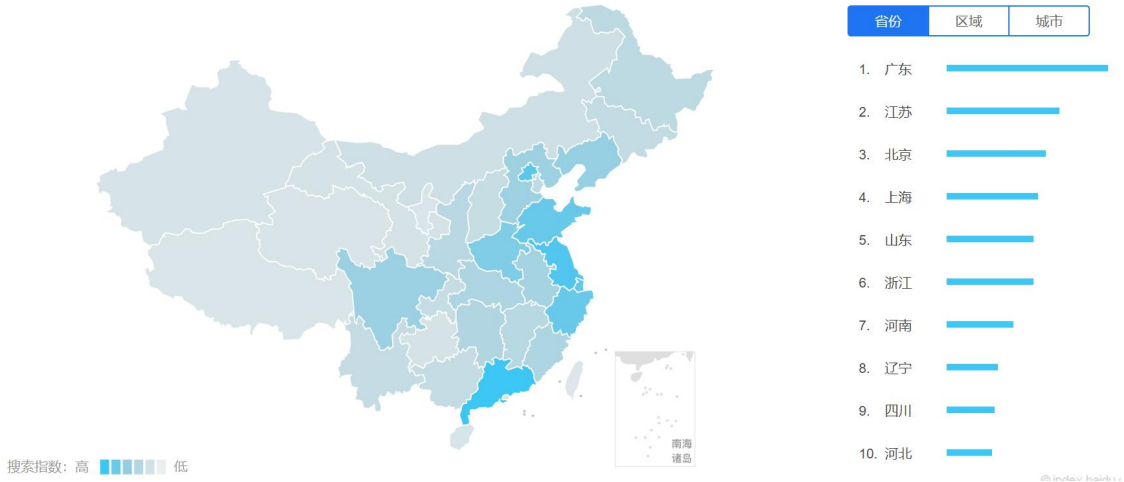


Table 17: The rank of regions in searching the key word “鳄梨油”

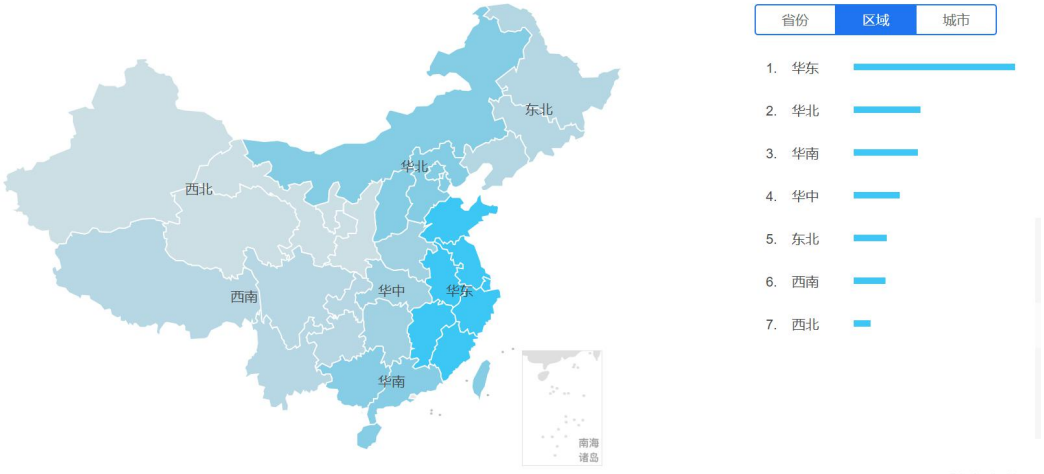


Table 18: The rank of cities in searching the key word “鳄梨油”

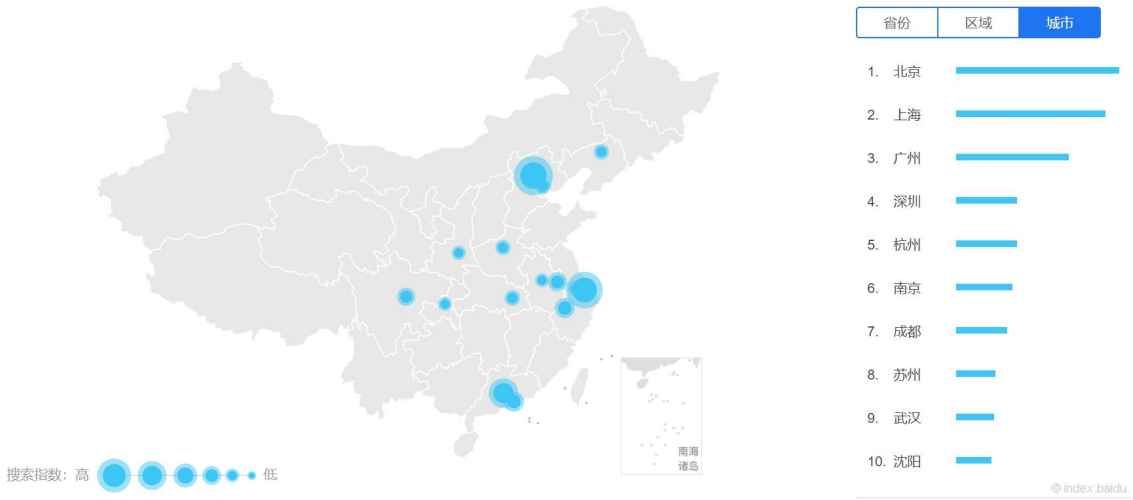


Table 19: : Target customers age and gender rate

Table 20: Click rate of the Key word “酪梨油”
1/1/2011-7/6/2018　Source：Baidu Searching Index

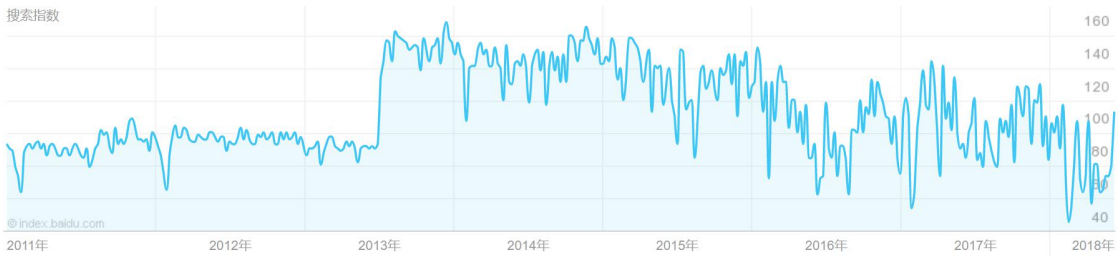


Table 21: Click rate of the Key word “酪梨油”
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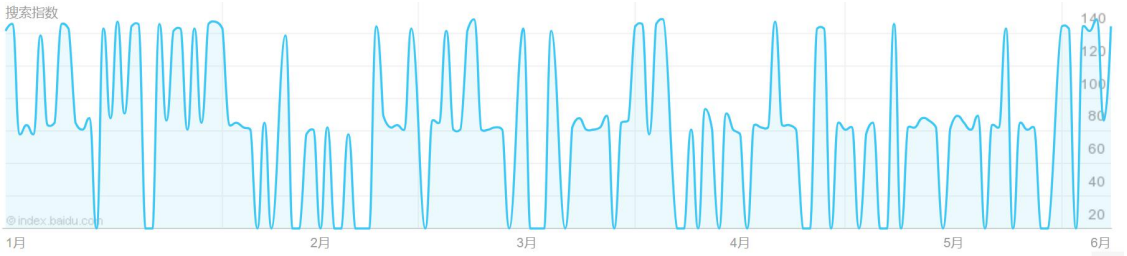


Table 22: The rank of provinces in searching the key word “酪梨油”

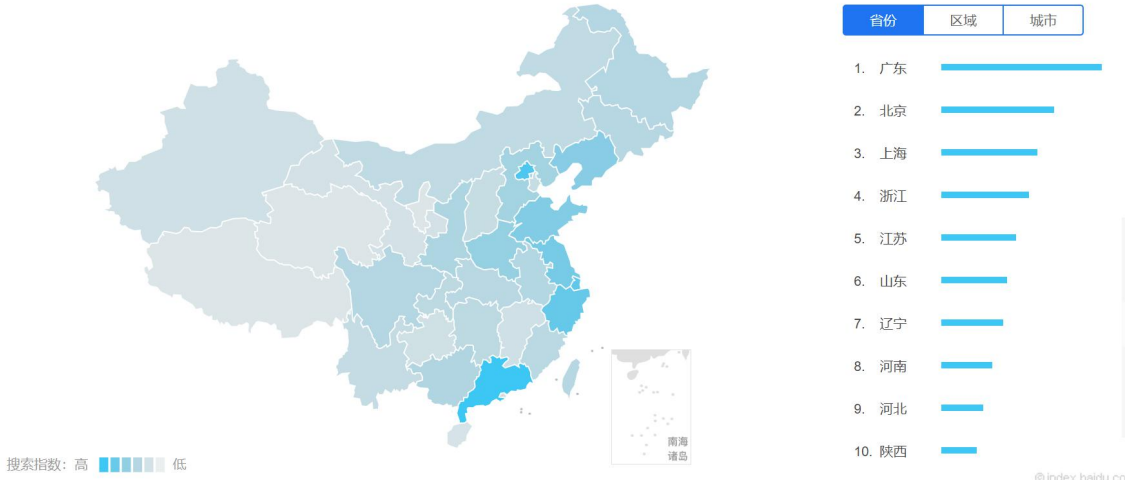


Table 23: The rank of regions in searching the key word “酪梨油”

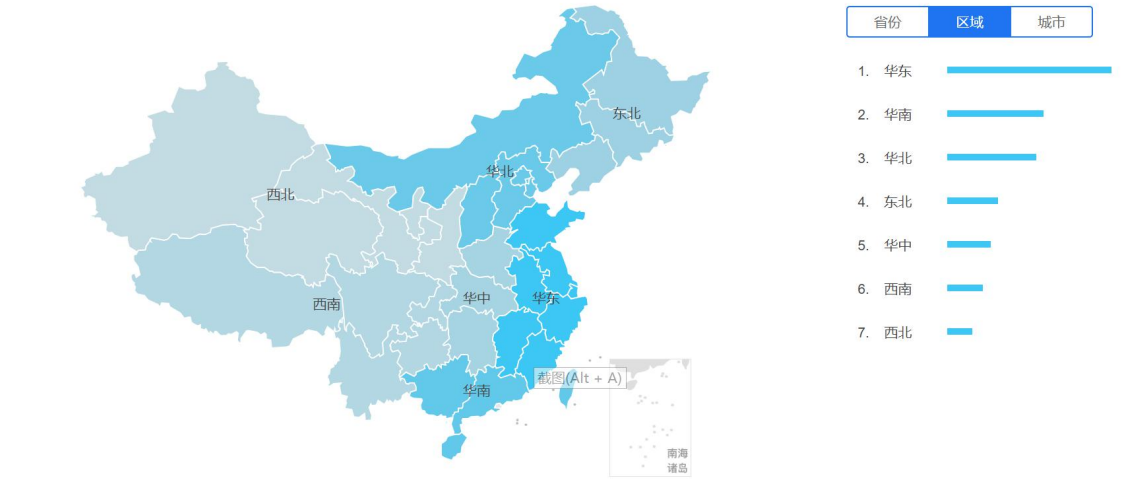
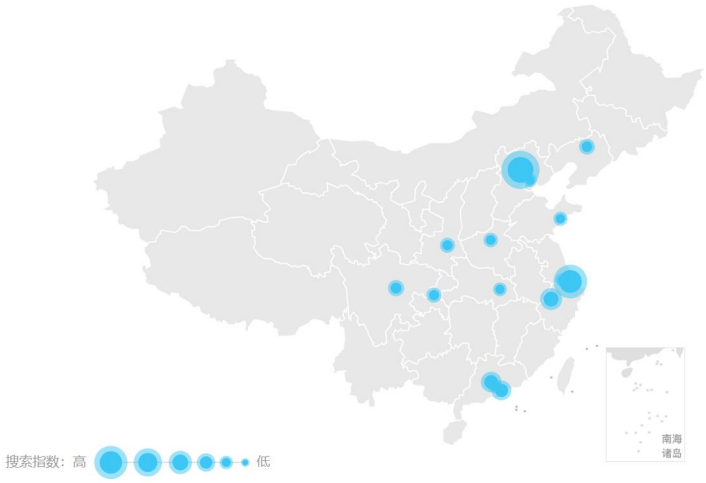


Table 24: The rank of cities in searching the key word “酪梨油”


搜索指数：高
低
南海
诸岛


省份
区域
城市
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3. 杭州
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