Business plan

Super Mega

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Creation and management of innovative technology-based companies

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1 Business Plan

1.1 Industry background and competitor analysis

Artificial Intelligence, as the backbone of information technology in this century, has been highly hoped for the power that can shape the society and world in a different way. Unlike the dark period in 80s, the whole society has realized the role of AI and their confidence on AI has been back again. What make the people change their ideas is that some significant progressions have been made in computer vision, natural language processing, etc. Some intelligent algorithms have been professional enough to handle the problems beyond laboratories. Right now, they get involved into the reality and make decisions on behalf of people. Watson, the AI system developed by IBM, defeated its strong human opponent on the question answering game Jeopardy. And in ImageNet Large Scale Visual Recognition Challenge, both Microsoft and Google have got extraordinary record of Accuracy (Microsoft: 95.06%, Google: 95.2%). By this rhythm, the intelligence of machine will overshadow human beings in several decades. Some people believe that the singularity of AI is approaching. However, no matter singularity would come or not, doing business with the aid of AI is inevitable.

Computer vision, as the foundation of data collection in real-time, badly influence the quality of collected information and the intellectual degree of the machine. For the reason that in the long process of data processing, image processing is an initial and fundamental part. If this part cannot be optimized, no matter how much you can improved in the rest works, performance of the following steps are limited. Although making machines embedded with a camera module is easy right now, it does not mean that this machine can see as we do. So to push the limits, the camera must conjuncted with robust and and effective computer vision algorithms.

In china, some giant companies have stepped into the area of computer vision. And some of them paid lots of attention on facial recognition. This year, Jack Ma, the founder of Alibaba, announced their new payment system by facial recognition. And in the future, the owner of online shop have to do yearly verification by face as well. With this system, user do not need to press the key to confirm the payment. Instead, they only need to take a selfie photo within the predefined areas. Behind the system, the facial recognition system is developed by Face ++, a start-up company which focus on cloud face detection. They can provide recognition toolkits for their clients, and offer technical solutions for other companies. However, it seems that they are not interested in packaging the recognition function with the huge dataset as a complete product.

Baidu, the Chinese Google, devote to computer vision earlier than Alibaba. The goal is to improve their search engine as much as possible. Last year, the renowned deep learning specialist, Ng Wu, had participated in their artificial intelligence group as the leader. And their directions of study are very vast, such as speech recognition, natural language processing, image recognition, etc. Image recognition is just a branch of their study, and the visual datas for detection are still images online. Therefore, the case is quite different from the facial recognition in real environment.

In summary, we are not the first one step into the area of facial recognition, but there is still some space for us to find new markets.

1.2 Technical explanation

(1).Overview

In recent years, the concept of deep learning and big data have become a hot topic in the real market.

They are all covered by the context of artificial intelligence and they catch people lots of attention not only because that these technical methods can easily handle huge amount of data, but also they are efficient and robust on the performance of data analysis. No matter people provide machine with some labeled samples or not, machine can automatically find out the inner principles, features and correlations between each sample. So it is reasonable that we prefer to apply intelligent computing methods into our project.

In our personal information platform, we plan to process 2 general types of information. The first type is verbal information, such as basic individual data, consumption record and preference, etc. The second type is facial image which is used to do facial recognition. We can match our digital information with the people in the physical world.

As for the structure of this system, they are planned to be built into 2 parts. First is the cloud server which is in charge of big dataset storage, doing initial stage facial recognition and distributing information to different local agents. Second is the group of sub level agents. They are planted in various shops and market. If we take single shop

as a unit, among these units, it contains various equipments, such as cameras that installed in the entrance, or ones that embedded in cashier machines and wearable equipments (Google Glass). The task of local agents is in charge of receiving information from the cloud server, doing real-time face recognition, update the personal consumption information and then deliver them back to cloud server.

(2)Build Cloud Dataset

In the beginning of setting up the dataset for numerous people, we need their information as detailed as possible. To get the permission of legally use personal information, at first, we need to get agreement with the people who allow us to use their information. Otherwise, we won't add their data into our dataset. If some customers have been the member of any brand, it can be regarded that they have had the agreement.

Next is to accumulate the informations. The verbal information we would collect are some basic informations such as ID, sex, age, address and profession are needed. And then, by popularizing the application of the system, further informations can be enriched. As for facial images, we also need some samples. The ideal sample for each person is that we can get the image of their face from different perspectives. And a set of facial sample may contain 5-7 photos in this way.

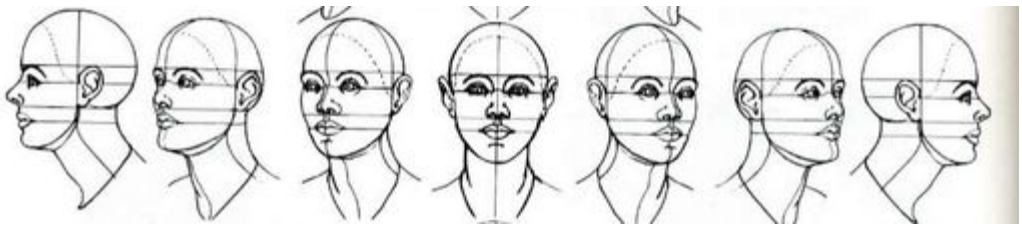

Figure 1 Diagrams of Heads in perspective by Jacobs Studio

http://jacobsstudio.blogspot.com.es/2007/09/portrait-workshop-at-mint-museum.html

(3)Initial Stage Face Recognition by Deep Learning

When customers enter into the shop, the camera would take a picture on this people and then send this photo back to the cloud server for doing face recognition of large-scale data. For matching the image with the person which has been already stored in our dataset, we prefer to apply deep learning.

Deep learning is a kind of intelligence computation which is inspired by the neuron's way of working. Evolved from Hopfield neural network, deep learning can process huge dataset with more hidden layers and learn to recognize patterns in a more automatic and intelligent way. In traditional machine learning methods, researchers need to help the machine to find out the significant features which can better represent the target information and then tuning the parameters manually to get the mathematical model which can match the reality phenomenon. However, for deep learning, things become easier. People just need to decide the structure of neural layer, and put some images are an input and then start the training. The machine can automatically find the best features and optimal parameters. And normally, the recognition results outperform the most existed facial recognition methods. The recent outstanding researches on computer vision which applies deep learning are as follows. Stanford Vision Lab use deep learning to make the machine learning to recognize various objects in a single image, and then make a sentence to describe the view of the whole image. In addition, researchers from the Chinese University of Hong Kong proposed deepID, a new way of calculating features of human faces in application of deep learning. In this method, the precision of facial recognition (LFW) has achieved 97.35%.

However, this result from laboratory still has some space to be improved. In our application, we can devote more resources than academic research to strengthen the single function and make it work well in real life environment. So we predict that the final precision we can get on facial recognition will surpass 99%

To apply deep learning into our project, we only need to regard this task as building a classifier for multi-labeled samples. Each person is labeled with his or her ID. And their sample photos have been kept in this great neural network. When this person enters into the shop, his or her current image will be send to the cloud server, and this will serve as the input for deep learning network. We can just treat the deep learning network as a black box. Inside the network, it works on matching the input image with the sample images that stored in database. When it finds out the most similar one, it will output the ID of this person. And the related personal information will send to the local agent. If this person has not been stored in the dataset, the system will send a message to ask local agent collects the initial verbal and imagery data of this person.

(4)Real-time Face Recognition

When customers wander around, staffs of this shop will use wearable devices to do real-time facial recognition. Since for the temporal storage of local agents, it has downloaded the data of the people who have come into the shop, the number of people for real-time researching has been minimized. Maybe the possibility of false positive recognition can be avoided.

For recognition, we would use template based models. First, we create a template based on our sample images. Then, the video is compared pixels by pixels with this template, and the scale of template is adjusting as well. After 2-3 seconds, we can get the result. And the recognition rate of template based method is around 88%.

When people leave this shop, the real-time recognized will find out and inform leaving message to cloud server. And the sample photos stored in local agents would be removed.

(5)Data Analysis

As we have got consumption record of people who cover more than one shop and brand, we can classify people by their preference and consuming habits. This work is done by unsupervised learning. This way of learning is good at searching out the similarity of a group of people and make them being a clustering. For example, it can find out a group of people with the same income level, age group and the same taste for certain products, etc. As you can see, this is a group of people with more than one similar features. With the help of unsupervised learning, we can explore our data and find out the deep correlation between people and easily get the unexpected results which are not obviously shown in normal data analysis. And also take into account of single product or brand, we can also explore the data of people who are fond of purchasing them.

Figure 2 clustering of people

For the graphical representation of clustering of people, if they share more similarities, theeir position would be closer. On the contrary, they would be far from each other.

1.2 Executive Summary

As time pass by, the data size have increase dramatically, and this lead to many companies easily getting into confusion and making false decisions. The traditional customer targeting method cannot satisfy the need of corporations. In the intense competitions of the industries, more precise and refined selling is urgently needed by company. Under this context, single company don't have enough resource and time to accumulate, store and analyze such a big data.

Supermega("Chaoda" Supermega in chinese, the same below) is a company which focusses on information collection and data analysis, and we plan to link digital information with facial images. And we will spare no efforts on providing all round selling strategic plan for our customers.

What we need to do is to integrate facial recognition technology with customer, data and corporation. Added with statistical analysis on big data, we could offer

companies details selling and strategic decisions. And by the same way, customers of these companies can enjoy the high quality service and tailor made service.

Our system cannot only be used in business, but also it is compatible in public infrastructures, and even medical institutions. In a nut shell, Supermega is an information platform based on human faces, and it is also a platform of professional analysis on individual informations. Companies and governments can improve their service and future plan with the help of our product.

2 Basic Project data

2.1 Identification of the project

Our plan is based on facial recognition technology, and to build the related digital information platform. It is different from the traditional way of collecting data. In this way, we can make an efficient, authentic, irreplicable and unique customer information platform. In business area, companies can get more precise report to help them get to know customer's preference, purchasing power and consuming habits, etc. It is not only helpful for companies, but also contribute to improving service experience. The most important thing is that in the process of application, it will take a crucial role in commercial and non-commercial areas(medical service, public security, etc).

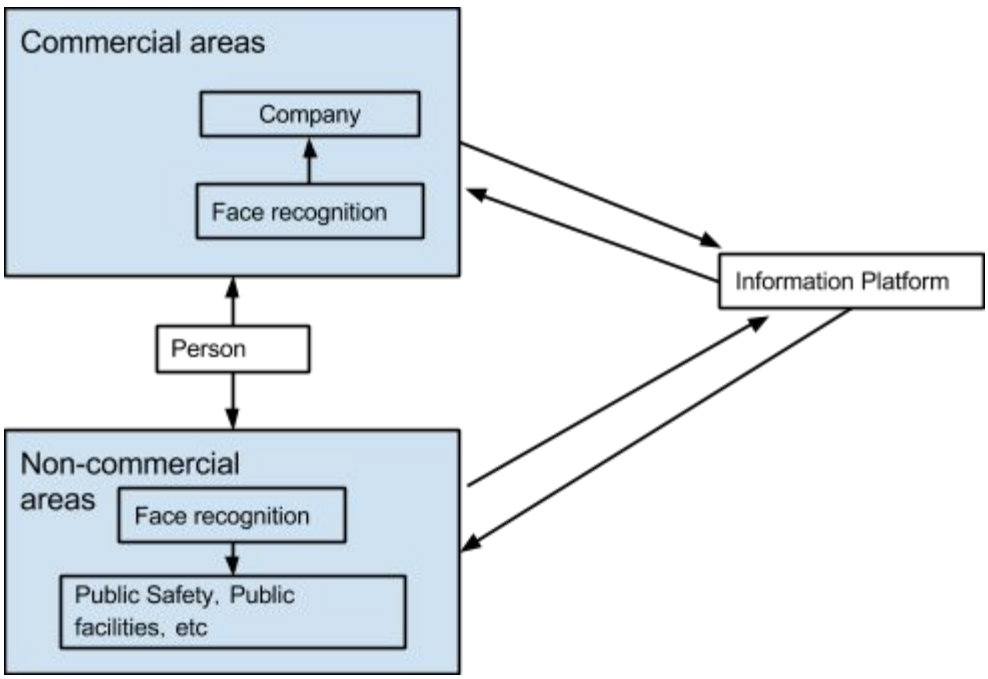

Figure 3 Platform application areas

2.2 Bussiness Model Description

（1）Information input, collection phase

The process of individual information collection and input is very important, because the performance of this platform relies on these informations, which includes basic information, consuming habits, preferences, etc. For this stage, there are 2 ways of information input.

Active Input (Customer)

Establish cross-platform face account, For example, using face recognition, you can log into multiple e-commerce platform or social platform, prompting consumers or users are willing to commit and to use the information platform. Faces as a login ID, personal information, identity, passport number as the password. Or collect facial sample by phone games.

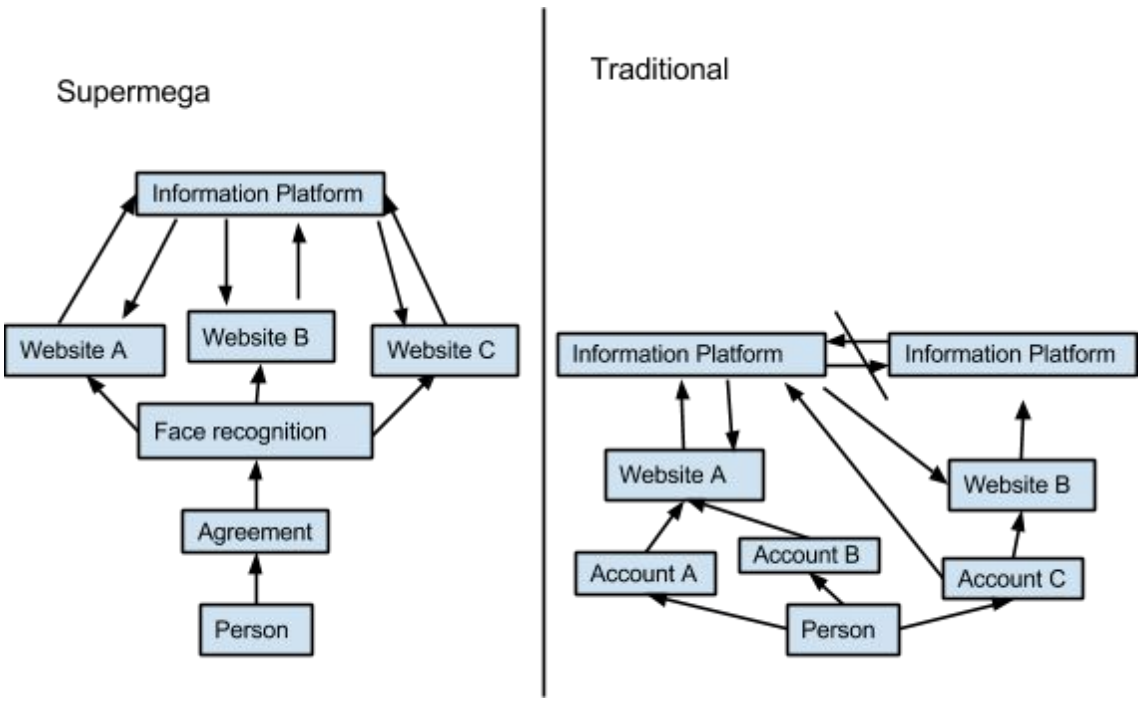

Figure 4 Supermega platform compared with other information platform

Passive Input (Customer)

For obtaining certain service or product, customer passively hand out their information. For example, we can show our privacy clause, if the customer step into the shop that uses our platform, it can be regarded that they allow us to collect and use their data. On the virtual environment, such as Facebook, Apple, Google, Free Wifi, if people need some services or any discounts, they need to fill in their personal information for the exchange. We will also stimulate the brands that use our platform to offer more coupons and any other way to make people be willing to send their information.

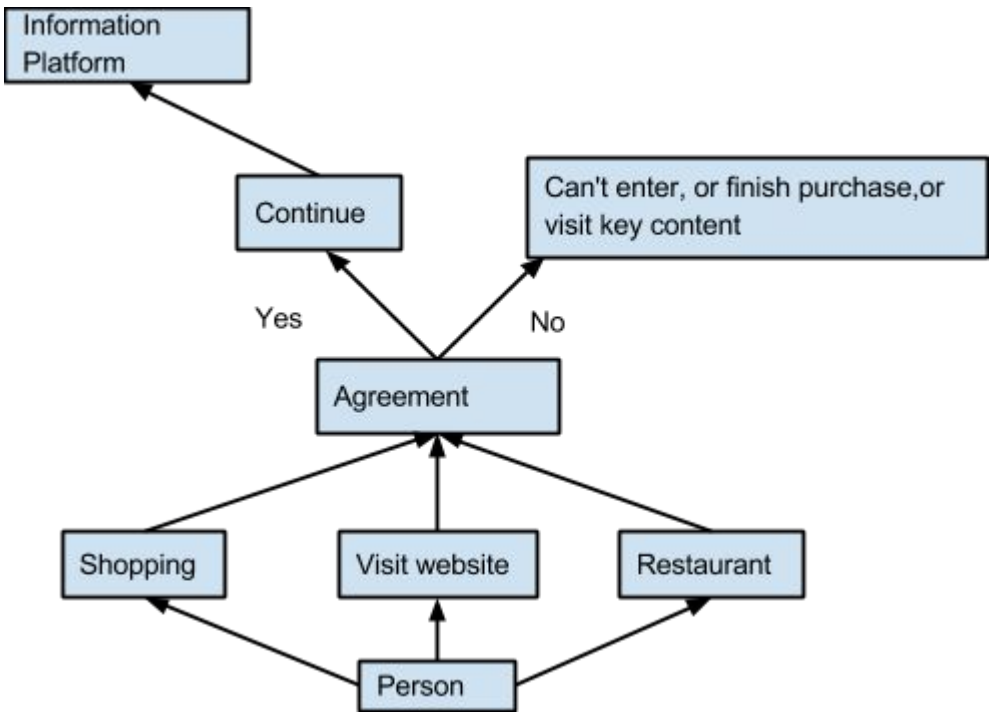

Figure 5 Access to information and privacy agreement

(2)Statistics and data analysis phase

With the help of data mining and deap learning, we can analize the huge data and then get the valuable report for single company or the entire industry. Meanwhile, our clients are acess to the information and data they need from this platform.

2.3 Location

The reason that we start our plan in Shanghai for the following reasons. First, population and population density, the population of Shanghai is 24,150,000, of which 990 million floating population, 3,809 people per square kilometer. Compared to other major European cities, its population and population density is more conducive to the collection of information.

（Shanghai Statistical Yearbook http://www.stats-sh.gov.cn/data/toTjnj.xhtml?y=2014）

Secondly, For privacy protection, the United States and Europe and other developed countries have already had legislation in 2012, the Obama administration announced promote (Consumer privacy Bill of Rights), Although the legislation has not been implemented, but is still shows that the United States government worried about.

In 2000, Europe also enacted (The Data protection Regulation), and signed a (Safe harbor) agreement with the United States in 2000. This agreement provides for the use of consumer privacy information. Companies must be approved by individual authorization in order to be third party use and transfer.

With respect to the Chinese law, the Chinese government's policy to maintain the support and encouragement, such as “real-name registration system of internet”, and such as People's Bank China and other technology companies have started the application of recognition technology.

2.4 Investment and Financing necessary

	Unit	Amount	Total（13meses）
Computer Vision Engineer	4	2000	104000
Big Data Analytics Researcher	1	1100	14300
Front End Developer	1	1200	15600
BackEnd Developer	1	1400	18200

Database Administrator	2	1500	39000
Hardware Test Engineer	1	1500	19500
Finance	1	700	9100
Human Resources and Training	1	700	9100
Marketing	1	1100	14300
Work Station	1	3000	3000
Office Supplies			5000
Office rent	100m^2		21500(12 month)
Others			50000
total			321200 Euro

Table 1 Investment and Financing necessary

3 The company, business

3.1 Mission, Vision, Values

We are a company based on the platform of personal information collection and analysis. Dedicated to the collection of variety of consumer behavior and habits of consumer through recognition technology, real information and virtual data link. And provided to commercial companies or government agencies, and other scenes that can be applied. The company is a collection of cloud storage, cloud computing, smart city, artificial intelligence and other advanced concepts' company, committed to creating a better and harmonious society.

3.1.1 **Mission**

Providing the most reliable and the most valuable information real for all enterprises, institutions and social.

Our information platform dedicated to the collection and analysis of the most real, most fit the reality, the most valuable information and trend analysis and forecasting, all

our customers can get the information what they need from us, see their future. Consumers can also get more accurate business better services and products.

3.1.2 **Vision**

Various Direction Expansion, Being indispensable part of social development and being indispensable part of people's life

Various Direction Expansion:

We can not only serve for business, and we can also step into areas such as Internet, national security, counter terrorism, health care, etc.

Being indispensable part of social development:

We concern both business and social responsability. And we hope that we can make our contribution to social development. And it calls for our non-stop study and innovation to maintain out competitiveness.

Being indispensable part of people's life:

People of all walks of life can obtain needed information from our platform.

3.1.3 **Values**

Integrity (Obey the law), Honest, Mutual Assistance (team work), Thanksgiving(society responsible)

The first part are good human character, the second part are the responsibles of the company.

3.2 Business model

<table>
<tr>
<td rowspan="2">Key relationships

1.Usuar of company

2.University Lab

3. Other technology companies</td>
<td>Key activities

1.Statistics and Analysis

2.Business cooperation</td>
<td rowspan="2">Value proposition

1.Mining useful information

2.Targeted to increase sales and strategy

3.Improve service quality</td>
<td>Relaciones Clientes

1.Cooperation and common development.</td>
<td rowspan="2">Customer segments

1.Enterprise

2.Government

3.Varios institutions and organizations Retail

4.Shops

5.Hotel, hospital</td>
</tr>
<tr>
<td>Kkey Resources

1.Patente

2.Information</td>
<td>Canales
1.página web
2.Aplicaciones móviles
3.Motor de búsqueda
4.</td>
</tr>
<tr>
<td colspan="2">Cost structure

1.Software, Hardware

2.Salarios</td>
<td colspan="3">Income stream

1.Business Solutions

2.Sales of hardware and software

3.Corporate Advisory</td>
</tr>
</table>

Figure 6 Business Canvas of Supermega

3.3 Why invest in Supermega?

1. Advanced technology、concepts and ideas

Supermega plan to develop a platform based on deep learning, computer vision and other artificial intelligence technologies. And in this way, we can provide the company and other organizations reliable and valuable informations. No matter the entire system or single technology, they are all very promising and they can be applied in many areas. It has a great future in national security, counterterrorism and health care.

2. Investment supermega, is investing in the future

Supermega is dedicated to the development of face recognition based on the information collection and analysis platform,Through artificial intelligence technology,

mining and integrate various types of consumers informatio, helping enterprises make targeted marketing and strategic decision-making.

The information that traditional Internet industry or business acquired, its inaccuracy, ambiguity, isolated, often misleading companies make bad decisions and choices, especially under the impact of the Internet wave, traditional industries have been transformed into electricity supplier, although Internet sales brought the company's sales growth is very attractive.

But as more and more segments of the electricity business rise, is the Casting Net Marketing will able to continue to obtain the corresponding sales growth, which is worth exploring. In order to stand out from the competition in the future, refining services, targeted marketing is the future of all businesses have to face.

The Supermega need to do is to integrate real data, by collecting and analyzing data, companies will be able to effectively targeted sales for each consumer. When specifying can make the strategy decisions more accurate and correct.

3.Why Supermega

In the next few years, a variety of big data companies rise and development, conflict and even contradictory data repetition is predictable, so for enterprises, recognize the validity or authenticity of these data are very difficult or cost too high, then the advantage is that supermega, face it‘s unique. This will effectively solve the data duplication, and false, but also capable of effective methods for each customer. Understanding each customer, which means each step for business growth.

4 Description of the products / services

4.1 Identification of products / services

4.1.1 Information Collection and Analysis Platform based on Facial Recognition

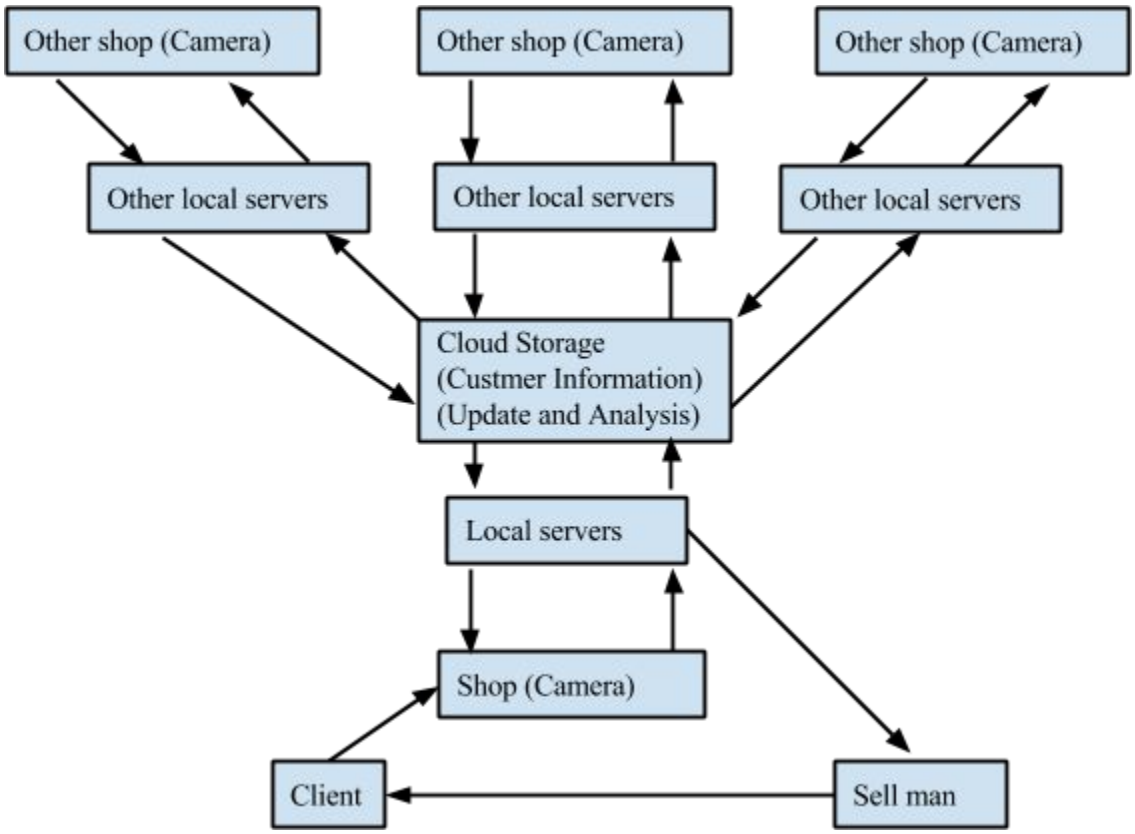

Figure 7 How the platform work

My assumption is as follow

1. When people enter the building, the camera recognizes the person and inquire information on local server. If this customer has been detected by the system, it will send the feedback by local server with customer informations. Else if it is a new customer has not been detected yet, a new document for this person will be created and inquire the cloud data base to see if this person has been kept in it.

2. Local server send information to apparatus of sellers (glass, tablet, etc)

The sellers will know

（1）Time's stay

（2）record of purchase

（3）Preference (history of search or by analysis)

（4）Purchasing power (analysis by statistics)

（5）etc

3. sales men analyse the feedbacks and provide personalized guidance to the customer

Staffs and sellers and get the customer's information: purchasing level, preference, number of visits, etc. With this reliable and precise information, the decision group of the company can make better business plan.

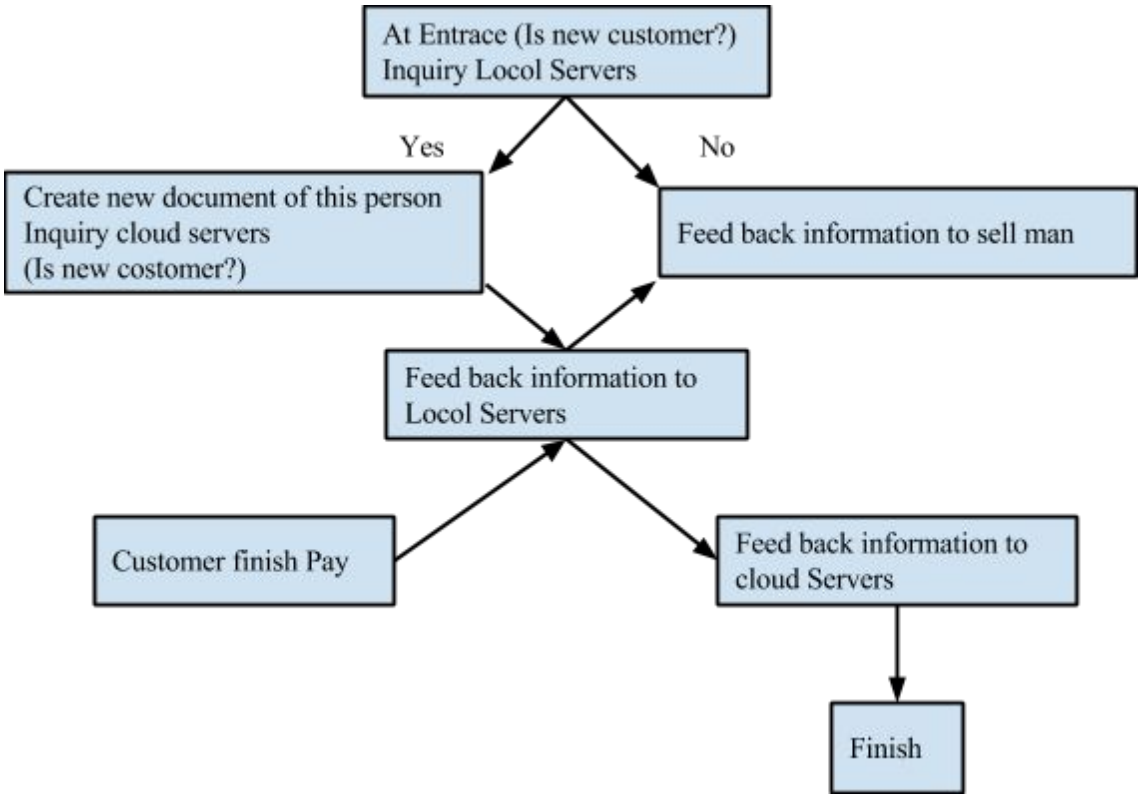

Figure 8 The basic logic of recognition

4.1.2 Business analysis and consultant based on data

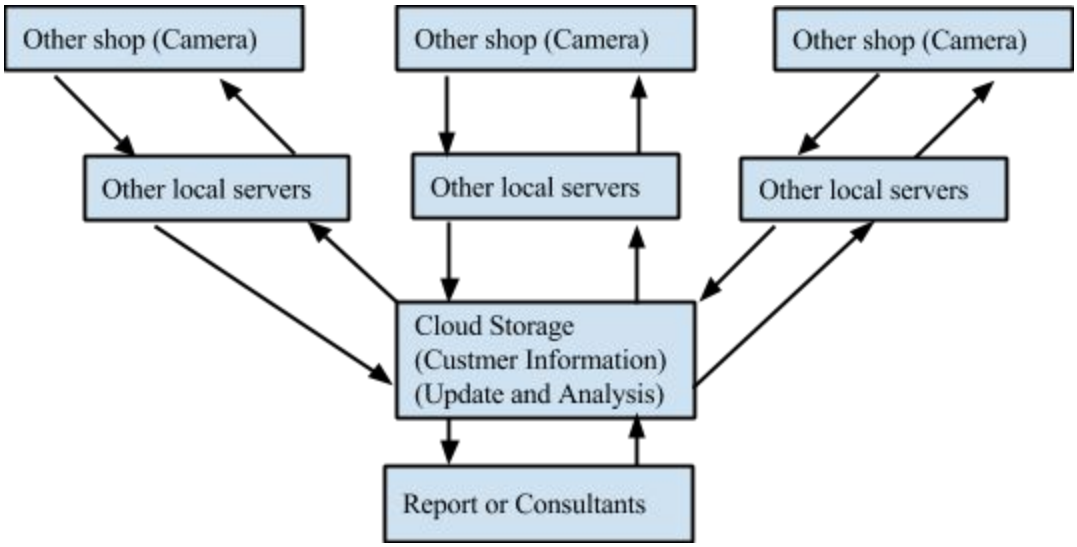

Figure 9 System Architecture

This is another data analysis service. The premise is that all the shops of this company are connected with the platform and share all the informaitons. In this way, they can get better results of comparison and analysis.

Based on all the data on the cloud, we can get the company's positioning in the entire industry. For example, a group of customers prefer this company and its brand, or the competing product of another company. We can also evaluate the market scale, trends and forecast.

4.1.3 Offer business solutions

For those companies which need facial recognition, we can provide tailor-made service. The possible clients can be chain enterprises, departments of the government, and all the other agencies and organizations which need our service and solutions.

4.1.4 Cross-platform face account

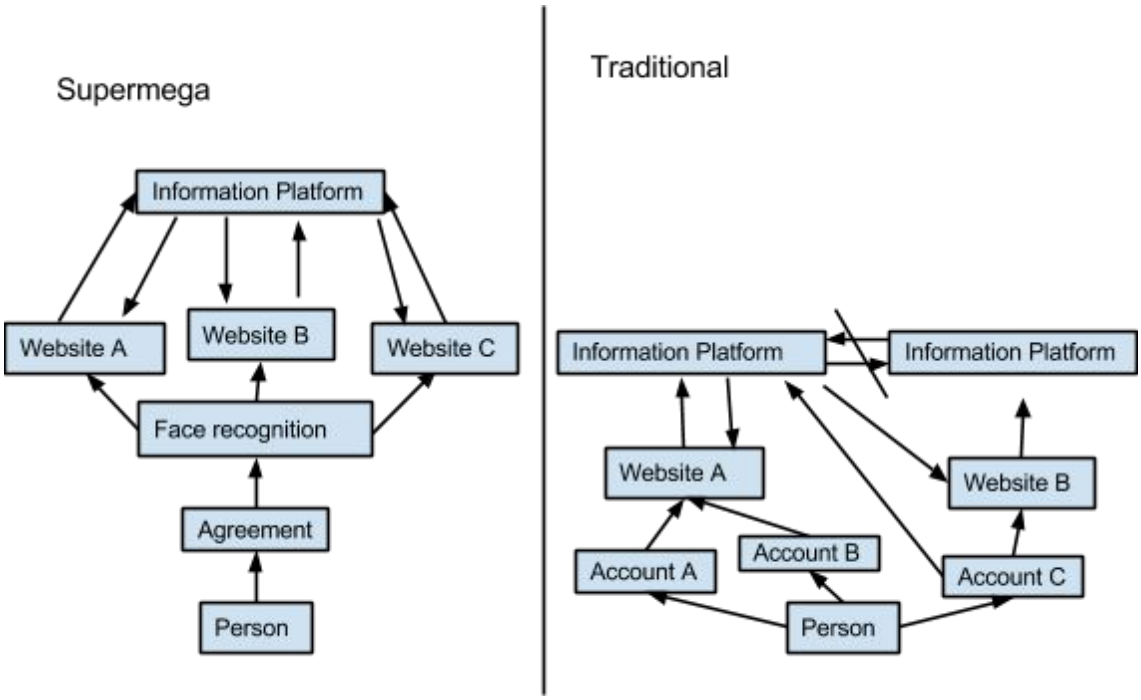

Figure 10 Supermega platform compared with other information platform

4.1.5 Security surveillance based on face recognition

Through the database , build Wanted Blacklist , applications and other airport or train station and densely populated area.

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4.1.6 Advertising

5 Analysis of the market

5.1 Porter Model

Entry barriers to new competitors: High

Barriers to entry requires enormous capital investment, or a significant number of technology and patents. And also a lot of company ready to enter the sector.

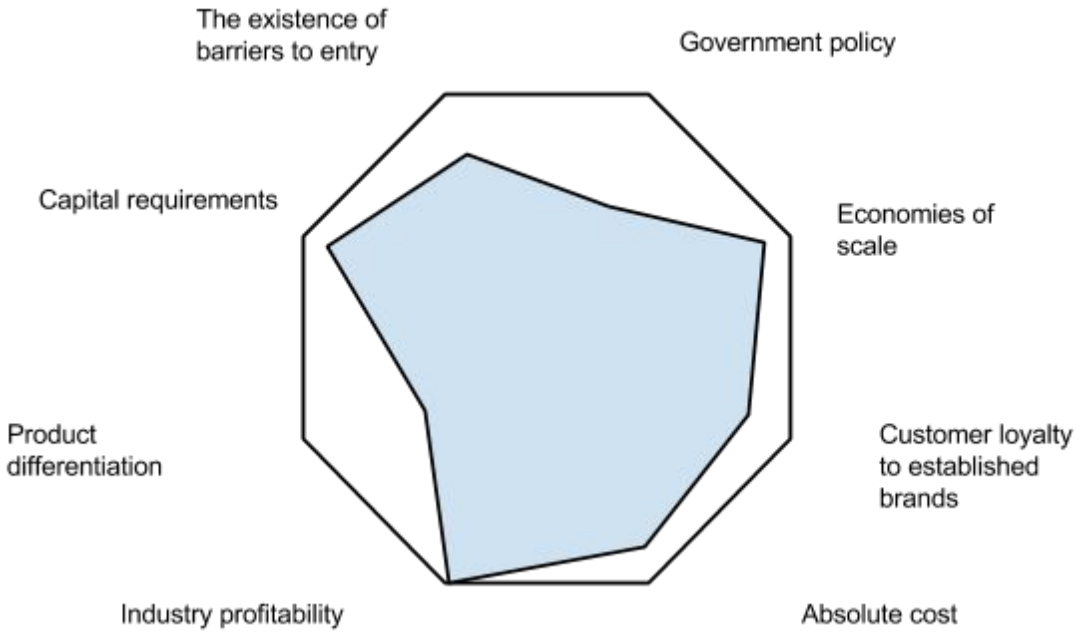

Figure 11 Entry barriers to new competitors

Rivalry among competitors: High

The existence of a considerable part of the social platform（Facebook） and technology companies（*Palantir, Alibaba, Apple, Google*） already have or have begun to study related technologies.

Part of the company already has the relevant technical reserves and development progress.

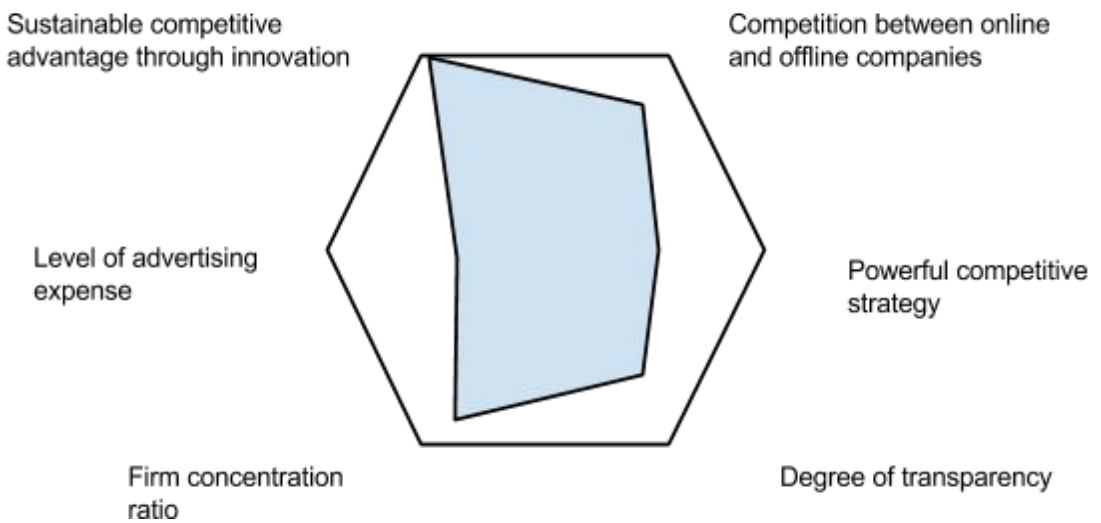

Figure 12 Rivalry among competitors

Power of suppliers: High

This section will be divided into two type suppliers, The first is the technology provider. It may be some university laboratories or some technology startups.

The second is the information provider, the main provider of both our information providers and our customers, and another type of information provider are various types social networking sites or other e-commerce website, they usually have a lot of personal information, have higher bargaining power will be high.

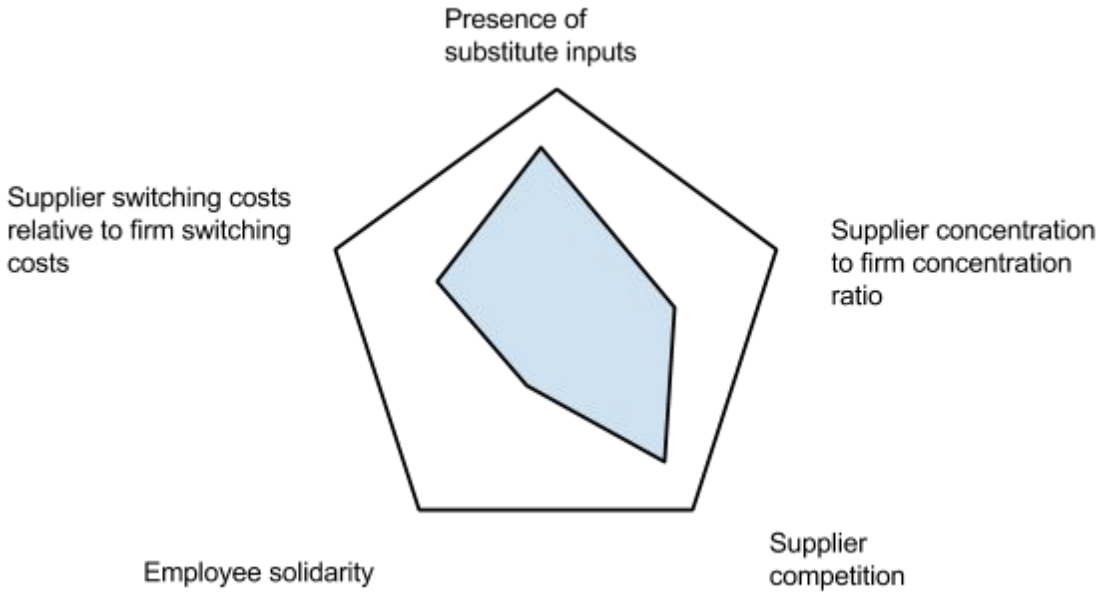

Figure 13 Power of suppliers

Power of customer: Low

With respect to the client, if the product or service is high reliance, the replacement cost will be very high. Buyer‘s’ *backward integration* is relatively weak.

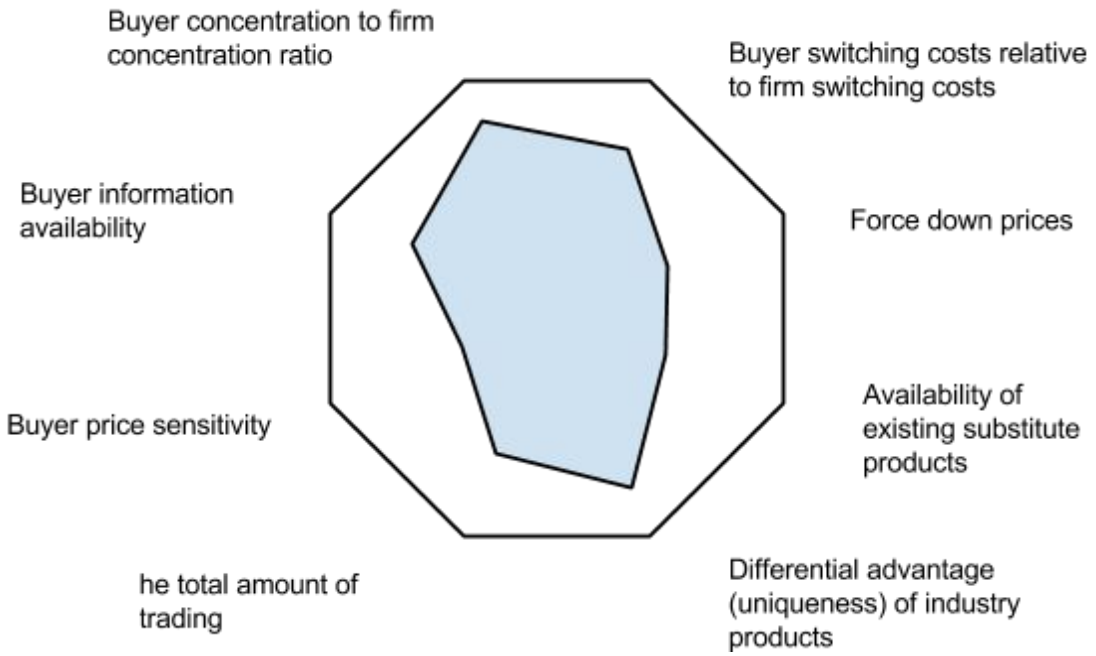

Figure 14 Power of customer

Threat of substitute products: Medium

1.Large technology companies

2.Social networking and e-commerce sites

3.Other traditional or new collection methods

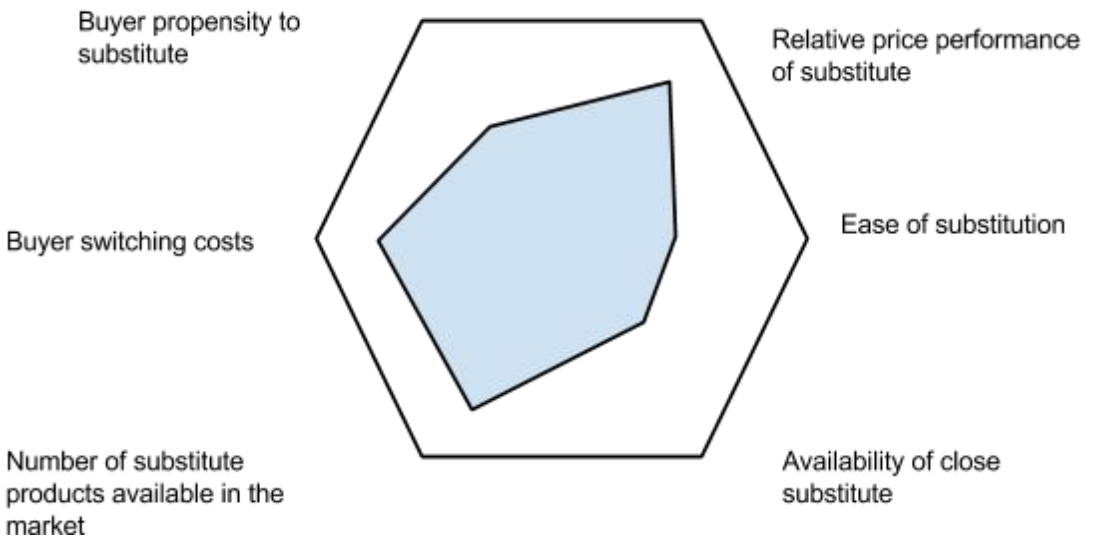

Figure 15 Threat of substitute products

6 Marketing Plan

6.1 SWOT

Internal	External
Weaknesses: 1.Require a lot of financial support 2.Dependence on developers 3.Highly dependent on technology updates	Threats: 1. The existence of a large number of companies ready to invest in the field of artificial intelligence 2.Large-scale technology enterprise technology and patent monopoly 3.More cheap alternatives, the new generation of alternative technologies
Strengths 1. The information collected, unique, high-value 2. The wide range of applications, a broad technical application prospects	Opportunities 1.Large market size, large Market capacity 2.No large-scale application of relevant technologies, there is still space for development

Table 2 SWOT

6.2 Marketing Strategies

1. System development and testing phase、Propaganda phase (first year)

This phase of the development and testing phase of the system, is unprofitable, only pure investment.Only when the system approaches the development is completed, Then we can make some propaganda, and its main goal is self-employed or small and medium sized companies, providing them with ideas and concepts, it aims to capture the market, and make preparation for the next stage.

2.Deploy, capture the market（1~2 years）

The whole system is divided into two hardware and software, but the hardware neither our core resources nor profitable point, The software and recognition algorithms are the most important, the core elements.

But in the early promotion, our company does not intend to use the software and hardware to make profit, on the contrary we are willing to provide hardware and software at a low price to sell, and to small and medium sized retailers and stores as our main customers, the purpose is to capture the market, access to the store and customer information. Also before large-scale technical application by other company, our customers will have dependencies to our product, for avoid fierce competition in the future. And during this stage, we will be deployed in each region corresponding technical support and maintenance, If an exception occurs, sending technical personnel to the scene to exclude related accidents, in order to ensure uninterrupted network equipment and software to run smoothly and information.

The project is expected to deploy a year, when the store deployment, and information collected is complete, start planning profit and pricing policy.

3.Development stage, the business expanded to large companies and Internet companies（1~2 years）

When the program began to profit, and achieved a considerable amount of data, we will begin offering for large enterprises or large retailers, professional solutions and system solutions, and develop other profit model, increase profitability, (advertising). And attempts with social media and e-commerce enterprises to cooperate and expand the range of data and information.

4.Sustained profitability stage（3~5 years）

Multi areas of development, across the purely commercial field, use big data and artificial intelligence technical advantages, Integration of corresponding data, improve data integrity and comprehensiveness, with mergers and acquisitions or other big data companies. Seek government support, we will expand into the public sector and other areas.

6.3 Segmentation, Target and Positioning

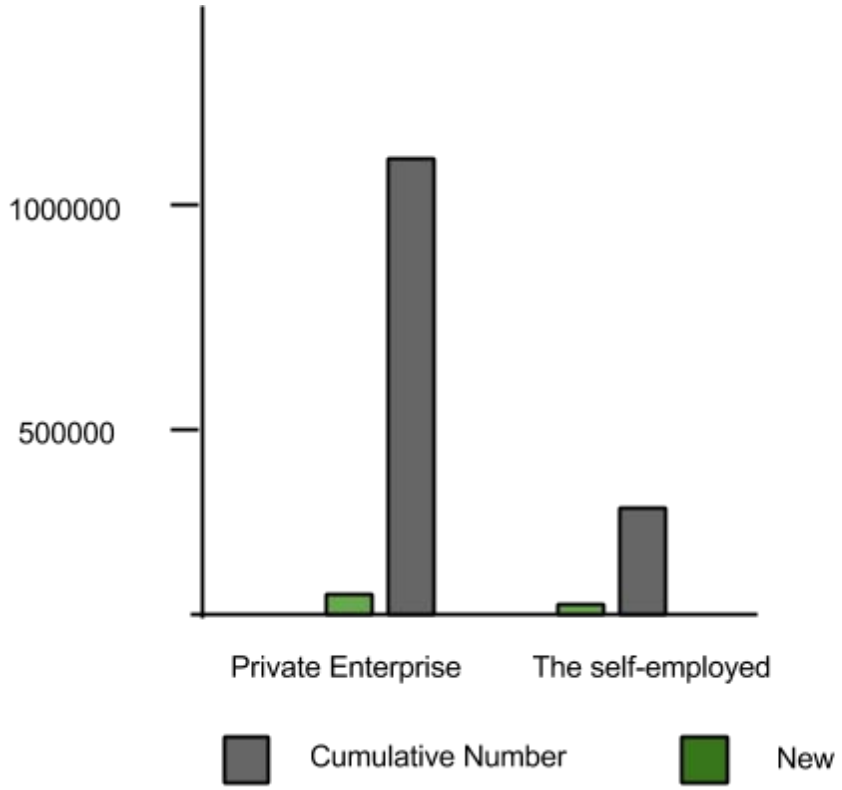

Figure 16 Enterprises quantity statistics（Shanghai）

According to preliminary strategy, our main goal is to small and medium enterprises, especially the service industry, Based on The Shanghai Statistical Yearbook 2014, the population of Shanghai is 24,150,000, of which 990 million floating population, 3,809 people per square kilometer. And in accordance with Shanghai Administration for industry and commerces' statistics, Self-employed (food, clothing and other services) reached 395,054 small enterprises amounted to 1,191,758.
(http://www.sgs.gov.cn/shaic/html/govpub/2015-05-28-0000009a201505250002.html）

6.4 The 4P's

Product：

Information Collection and Analysis Platform based on Facial Recognition（Main）

Business analysis and consultant based on data

Offer business solutions

Cross-platform face account

Security surveillance based on face recognition

Precio：Charging policy is based on the number of consumers has been identified, If this is the first time that consumers enter a store, recognize fee is 0.1 yuan (0.015 euros).

Market size conservative estimate, we assume that about 10000 deployed in the shop during the promotion period, charging policy is that if consumers go into a store for the first time, recognize fee is 0.1 yuan (0.015 euros). If assume that the year we identified a population of nearly 5 million, and each person a year to visit 20 different stores, then a year in revenue 5000000 * 20 * 0.01 = 1000000 Yuan (149254 Euro).

But the actual number may be more, because usually more female consumers will visit more store, and some number of restaurant will be visited more than 100 person.In Nanjing Road, for example, Traffic on the day at around 700,000, And most of them are floating population, meaning that the information collected to cover not only Shanghai city, but also covering the entire Chineseso. So we maintain a very optimistic attitude toward pricing policy, promotion policy and future returns.

Place：Divided into active and passive establish channels. At the prophase our salesperson will visit clients, when establishing the appropriate customer base and reputation, the customer will find us by internet or other way, in this stage we can waiting for customers to take contact us and also find customers by ourself. each region will establish appropriate technical support to ensure quality of service.

Promotion：During the promotion, the hardware and software we promote for low price, and to provide appropriate technical support, the promotion period will continue 1~3 years, and billing methods can give more discount, such as the top 10% of the number of free identification. In capital investment in exchange for market share. Despite Prophase lose a lot of money and it will be very obvious, but huge amounts of data and traffic charges after the promotion period will bring unimaginable profits.

7. Plan of operation

Strategic Intent	Strategy	Performance Indicator	Timeline	Responsibility
System Development		The entire system is developed	1 year	Technical Team
Promote of ideas and concept	Let the early customers understand the product concept and uses	10000 shops or customers	6 month	Operations Team
Market development	Capture the market	10000 shops or customers	1~2 year	Operations Team
E-commerce and search engine cooperation	Expansion of the database, connect the virtual and real information	At least one large company	2 year	Operations Team

Table 3 Plan of operation

8 Organization and Staffing Plan

The technical team will be the main core of our company, and other departments need to assist them. In the first stage, we need to focus on the study and development of the algorithm. Until when we can sell our package which contains both hardware and software, we can start selling and obtain profits.

8.1 Organizational Chart

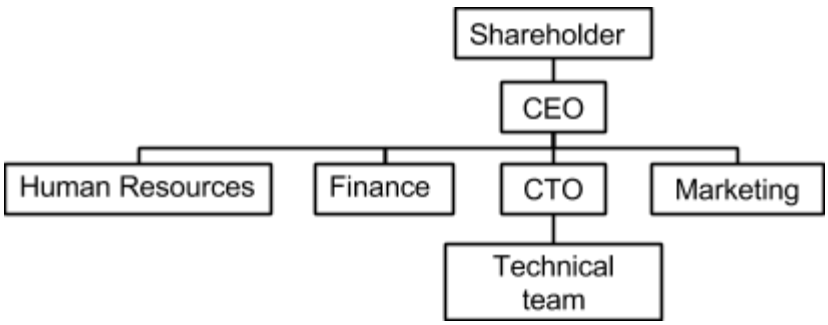

Figure 17 Organizational Chart

8.2 Job description

(1)Developers and Team

Software

- Computer Vision Engineer *4
- In charge of Initial facial recognition by deep learning and test template based real time recognition on wearable equipments. Communicate with hardware engineer and work jointly to find a solution to capturing sample photos

- Big Data Analytics Researcher *1

With the knowledge of machine learning and computational intelligence.

- Front End Developer*1

Set up the basic functions of local agent and make it coordinate with local hardware and cloud server.

- BackEnd Developer*1

Build the cloud server and make it send commands to the local server and get the feedback in time.

- Database Administrator*2

Maintain the dataset and help the engineers of computer vision and data researcher filter out the needed raw data.

Hardware

- Hardware Test Engineer*1

Debug serial port of connection between camera and equipments. Also they need to set up a wireless local network to connect wearable equipments, single cameras with the controller of the local agent.

(2)The company management and operations

Finance *1

Human Resources and Training *1

Marketing *1

8.3 Payroll and remuneration

	Number	Amount	Total（13meses）
Computer Vision Engineer	4	2000	104000
Big Data Analytics Researcher	1	1100	14300
Front End Developer	1	1200	15600
BackEnd Developer	1	1400	18200
Database Administrator	2	1500	39000
Hardware Test Engineer	1	1500	19500
Finance	1	700	9100
Human Resources and Training	1	700	9100
Marketing and sales	1	1100	14300
Total			243100

Table 4 Payroll and remuneration

8.4 Overall human resources policy

1. The internal assessment and promotion system

Take business assessment every three months to determine the upgrade salaries or position, and the management does not consider airborne from the outside, in order to stimulate the enthusiasm of employees.

2. The new employees and old employees training programs

For new employees, we will make teamwork, adaptability, professional people skills training. Accelerate the speed of new employees Integration into the corporate culture.

At the same time regularly invited industry experts for the old staff professional and technical training.

9. Overall human resources policy

9.1 Shareholders

Management and technical team 51%
Investor, 30%
Option Pool 19%

9.2 Sales Forecast

The company mainly to the face recognition technology as a profit point, which particularly in the Information collection and analysis platform based on facial recognition.

1. Information Collection and Analysis Platform based on Facial Recognition:

Charging policy is based on the number of consumers has been identified, If this is the first time that consumers enter a store, recognize fee is 0.1 yuan (0.015 euros). If assume that the year we identified a population of nearly 2.5 million, and each person a year to visit 20 different stores, then a year in revenue 2500000* 20 * 0.01 = 500000Yuan (74626 Euro). And we expect the annual growth in the number of the identified 2.5 million.

2.Business analysis and consultant based on data：

Providing professional Business analysis and consultant based on data. Providing a range of analysis and consultant based on data. Complete analysis and consultant based on data price of 25000 euro, the first year is expected to provide analysis and consultant based on data to two major shopping malls. In subsequent years it is expected to grow by 50 percent annually.

3.Offer business solutions：

Providing professional technical solutions, including camera layout, software installation, hardware maintenance. Providing a range of services to large stores and shops. Complete solution price of 50000 euro, the first year is expected to provide technical solutions to two major shopping malls.In subsequent years it is expected to grow by 50 percent annually.

4.Providing hardware, a cell phone or glasses, panel, such as a electronic products dedicated display customer information. It expects to sell 500 units in the first year, a price of 75 euros. In subsequent years it is expected to grow by 50 percent annually.

Product	2016	2017	2018	2019	2020
Information Collection and Analysis Platform based on Facial Recognition	0	74626	149253	223879	261192
Business analysis and consultant based on data	0	50000	75000	112500	168750
Offer business solutions	0	100000	150000	225000	337500
Advertising	0	0	0	50000	75000
Cross-platform face account		14925	22387	33580	50370
Security surveillance based on face recognition		17910	26865	40297	60445
Hardware		37313	55969	83953	125929
Total	0	294774	479474	769209	1139631

Table 5 Sales Forecast

9.3 Direct costs per unit of product

*Hardware Including cameras, equipment and other electronic products

	2016	2017	2018	2019	2020
Hardware	0	18656	27984	41976	62964

Cameras	0	75000	37500	18750	28125
Cloud Server	0	15000	19500	27300	35490
installation	0	14925	7462	3731	5596
maintenance	0	3750	5625	6562	7968
other	0	2000	3000	3750	4125
Total	0	129331	101071	102069	144268

Table 6 Direct costs per unit of product

9.4 Staff costs

Name	2016	2017	2018	2019	2020
Person	13	13	16	24	26
Cost personal	243100	243100	303875	455812	501393

Table 7 Staff costs

9.5 Operating Expenses

	2016	2017	2018	2019	2020
Rental	21500	21500	21500	21500	21500
Work station（Depreciation over five years）	3000				
Office equipment（Depreciation over five years）	2600				
Supplies	5000	7500	11250	16875	25312
Other	2000	2000	3000	4500	6750
Total	34100	31000	35750	42875	53562

Table 8 Operation expenses

9.6 Financing

Bank borrowings 74627 euro(500000 Yuan), Annual interest rate of 5.5%, the repayment period of five years.

Self-funding 425373 euro（2800000 Yuan）, get 51% shareholding.

9.7 Income statement

	2016	2017	2018	2019	2020
sales	0	294774	479474	769209	1139631
costs	0	-129331	-101071	-102069	-144268
salaries	-243100	-243100	-303875	-455812	-501393
margin	-243100	-77657	74528	211328	493970
expense	-28500	-31000	-35750	-42875	-53562
depreciation	-1120	-1120	-1120	-1120	-1120
EBIT	-272720	-109777	37658	167333	439288
financial expenses	-4104	-3119	-2462	-1641	-820
EBT	-276824	-112896	35196	165692	438468
Tax（15%）	0	0	-5279	-24853	-65770
Net Income	-276824	-112896	29917	140839	372698

Table 9 Income statement

9.8 Cash flow plan

Income					
	2016	2017	2018	2019	2020
ingress	0	294774	479474	769209	1139631

Pay					
Work station（Depreciation over five years）	-3000				
Office equipment（Depreciation over five years）	-2600				
Supplies	-5000	-7500	-11250	-16875	-25312
Cost personal	-243100	-243100	-303875	-455812	-501393
Rental	-21500	-21500	-21500	-21500	-21500
Other	-2000	-2000	-3000	-4500	-6750
Hardware	0	-18656	-27984	-41976	-62964
Cameras	0	-75000	-37500	-18750	-28125
Cloud Server	0	-15000	-19500	-27300	-35490
installation	0	-14925	-7462	-3731	-5596
maintenance	0	-3750	-5625	-6562	-7968
other	0	-2000	-3000	-3750	-4125
Loan repayment	-19030	-18043	-17390	-16567	-15743
Taxes	0	0	-5279	-24853	-65770
inicial	500000	203770	77070	93179	220212
final	203770	77070	93179	220212	579107

Table 10 Cash flow plan

*rate 5.5%

9.9 Balance

Resumen Balance	2016	2017	2018	2019	2020
Fixed Assets	5600	4480	3360	2240	1120
engineer material					
depreciation	-1120	-1120	-1120	-1120	-1120
Intangible Assets					
development expenditure					
Current assets					
Money Funds	203770	77070	93179	220212	579107
Held for trading financial assets					
Bills receivable					
Accounts Prepayment					
Accrued interest receivable					
Inventory					
investment					
Total assets	208250	80430	95419	221332	579107
capital social	425373	425373	425373	425373	425373
Long-term payable	59701	44775	29849	14923	0
Short-term payable	0	0	0	0	0

result of exercise	-276824	-112896	29917	140839	372698
result of exercise (negative above)		-276824	-389720	-359803	-218964
Accounts Payable					
total pasivo	208250	80430	95419	221332	579107

Table 11 Balance

9.10 Ratios

	2016	2017	2018	2019	2020
roe	-65%	-27%	7%	33%	70%
roi	-130%	-136%	39%	75%	75%
Debt to Assets	13%	10%	7%	3%	1%

Table 12 Ratios

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