

CHINA BUSINESS CHALLENGE 2012

CEN BUSINESS PROPOSAL COMPETITION



Preliminary Round Business proposal

Smartphone Based Health Monitoring System

Team Name: Angry PhDs

Member Name	Email Address/Background
Ding, Wei	dingwei.vivian@gmail.com , PhD Student in Biostatistics
He, Xuejing	hexuejing@gmail.com , PhD Student in Electronic Engineering
Long, Yuwang	longyuwang1989@gmail.com , Master student in information science
Lu, Jing	ajingnk@gmail.com , PhD student in Bioinformatics
Tian, Wei	buckees@gmail.com , PhD student in Electronic Engineering

Group Specialties:

Xuejing He, embedded system, wireless sensor network design.

Wei Ding, statistical data analysis, mathematics, public health

Jing Lu, bioinformatics, big data analysis, database design

Yuwang Long, information science, finance, business data service.

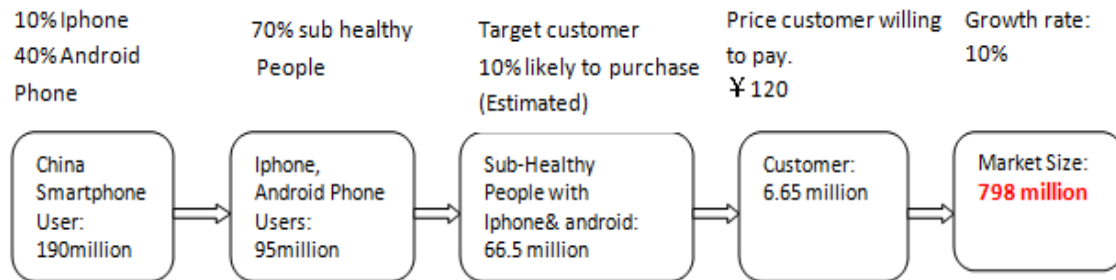
Wei Tian, medical instruments, group organization.

Filled by mentors:

Level of Recommendation					
Initial					

Background and Market Size

Sub-health is a state between health and disease, for whom things seem normal but the person experiences all kinds of discomfort and even pain. The World Health Organization found that 10% of world adults population are in sub-health condition. According to the latest survey, 75.31% people in Beijing are in sub-health condition, and most of them are highly educated with smart phones.



Products and Services

A smartphone-based health management system for individual users, including:

1. Smartphone application: user interface and data gathering.
Features: User-friendly, automatically information gathering
2. Accessory: health monitoring device for health information such as blood pressure, heart rate, etc.
Features: wearable, non-disturbing data gathering device.
3. Cloud-based personal health management system.
Features:
 - Unique user account: provides professional health data analysis report; The database can be easily accessed by authorized individuals.
 - Feedback system: Provides exercise and diet suggestion, and sub-healthy situation alert.

Value proposition

Sub-healthy people rely on health monitors to check their personal health information, which gets locked up in the device, without simple way to record, track and analyze that information. We believe that good health starts with individuals taking a more active role in their own health. Our goal is to provide network-based data management service.

1. Individual users

The undesired transition from health to disease can only be stopped when you realize your health information over time. The warnings will be sent to users when an unusual trend is detected. The personal health condition will be better realized when it is analyzed in the relevant data pool, for example, below the threshold or not. Getting instant feedback on the new collected data will help improve his/her health situation as soon as possible.

2. Health institute

The health institutes are strongly interested in our data collecting and management system. We can provide the system to the institutes and focus on more specific health problem. In addition, by simplifying the survey procedure and data collection, therefore reducing the cost, this service will also promote huge development of Chinese epidemiology.

Competitors:

Our service covers the whole industrial chain from device to decision-making. With our service, customers can have instant feedback from health management system, and other health-related companies can get our comprehensive health data analysis.

	Monitor manufacturers	Information system provider	Hospitals and universities
Focus	Precision improvement	General database	Health data analysis
Lack	Data gathering and management	Direct interaction with customers	Individuals oriented

Market Strategy

1. Pre-release stage (before product release): Goal: finish hardware and software system design.
 - Design a user-friendly smartphone application and accessories.
 - Build a diagnosis system.
2. Kick-off stage (first two years): Goal: sell 300,000 sets of our products
 - Collect and manage user health data via our Cloud-based database
 - Analyze these data to improve the diagnosis system
 - Provide personalized feedbacks and promotions to users
3. Sustaining stage: Goal: increase profit every year
 - Push customized advertisements to users
 - Provide health management system to healthcare institutes, especially hospitals
 - Provide health-data related consulting reports to third parties.

Key resource:

- System design and data management: team members have related experiences and backgrounds.
- Device manufacturing: there are various selections of components and devices for building the health monitor device in China with acceptable price.
- Cooperating device providers: there are many vendors in Chinese market.

Revenue Model

Cost Structure (Estimated through benchmarks and references):

Pre-Release Stage		Kick off Stage	
Device Design	¥0.6 Million	Manufacture cost	¥19.5 Million
Software Development	¥0.8 Million	Marketing cost	¥3.0 Million
		Operation cost	¥3.0 Million

Revenue Stream:

We only consider revenue from kick-off stage at this moment. In this stage, we make money from sales of devices, which is $120 \times 300,000 = 36,000,000 = 36$ Million. In next stage, we can potentially make money from health institutes and third parties.

On the trend

Information technology offers tremendous potential to improve the quality and lower the cost of healthcare in China. Our service also seeks to meet an overarching goal – improved quality of care, reduced medical errors, and better outcomes for sub-healthy group. We are definitely on the trend of the health market. Individual and isolated data will be integrated to network database and increase their own values. The health information exchange program is one of the examples.