

# 软件项目与过程管理

**“ICE”—Online Entity Game Store**

第七组  
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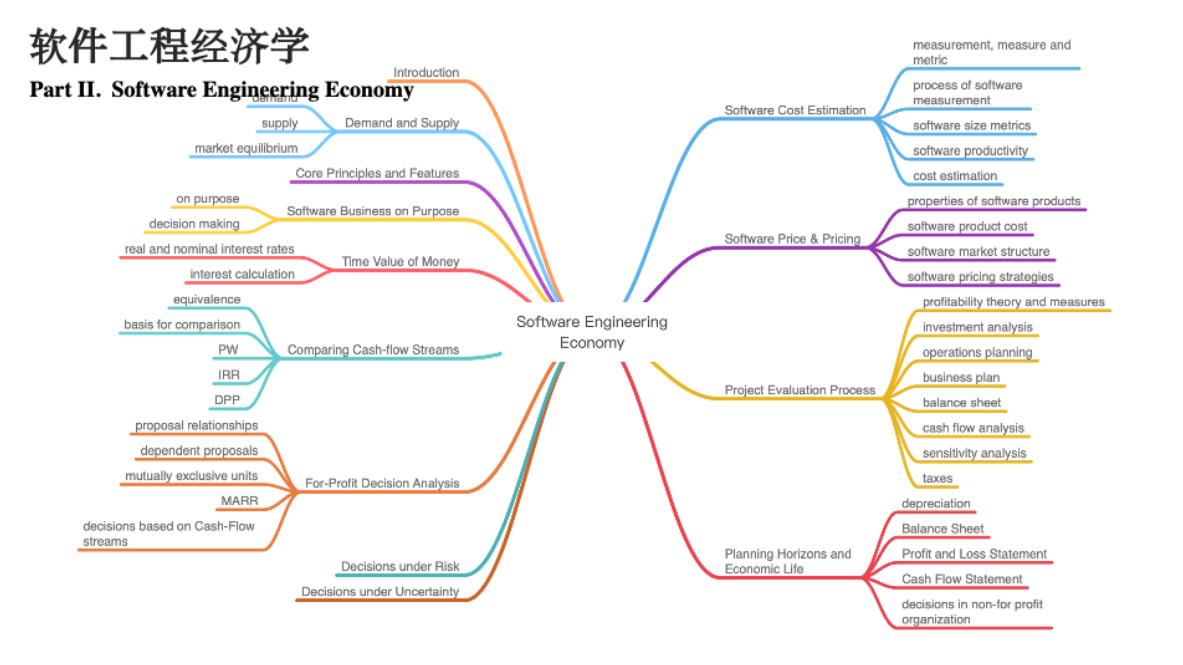
黄老师上午好，接下来由我带来我们小组「软件项目与过程管理」的期末答辩

# 软件项目与过程管理

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我们在进行过上半学期 过程管理相关知识域的实践之后  
将视角转换到软件工程经济学方面来



首先我们小组认真研读了课上老师的 14 份 PPT、教材、相关国家标准，并且结合我们自己的理解总结了「软件工程经济学」的一份思维导图 我们从这份思维导图中提取最核心的部分构成了我们组项目的体系结构，并用这份体系结构完成了我们小组 ICE 项目的期末课程设计  
这是我们项目的目录结构

# 软件工程经济学

## Part II. Software Engineering Economy



首先我们小组认真研读了课上老师的 14 份 PPT、教材、软件开发成本度量规范国家标准，并且结合我们自己的理解总结了「软件工程经济学」的一份思维导图 我们从这份思维导图中提取最核心的部分构成了我们组项目的体系结构

# 软件工程经济学

## Part II. Software Engineering Economy

### Company Overview

- Company Profile
- Market Analysis
- Competition Analysis
- Assumption & Prerequisites
- Operation Plan

### Financial Evaluation

- Pricing Strategy
- Cash Flow
- Depreciation & Amortization
- Profit & Loss Statement
- Balance Sheet

### Budget

- Statement
- Effort Estimation
- Development Cost Estimation
- Operation and Maintenance Cost Estimation
- Source of Budgets
- Repayment Strategies

### Economic Evaluation

- Break-Even Analysis
- NPV, IRR and Paybackyear
- Sensitivity Analysis

并且结合我们自己的理解总结了「软件工程经济学」的一份思维导图 我们从这份思维导图中提取最核心的部分构成了我们组项目的体系结构，并用这份体系结构完成了我们小组ICE项目的期末课程设计

# 软件工程经济学

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这是我们后半学期项目的目录结构

## 软件项目与过程管理

“ICE”—Online Entity Game Store



接下来我们主要从四个方面展开

# Company Overview

第一部分是有关我们公司的一些分析

# Company Overview

## Company Profile

### 1.1 Company Profile

The company's mission is to provide customers with a convenient, friendly and fast online physical game platform. The ultimate goal of the company is to be able to build a healthy, friendly and cooperative company, and to have a group of loyal customers and partners. In order to achieve our ultimate goal, game companies, etc. whose physical game resources carry out online sales business, we hope to be favored by customers in the annual customer satisfaction survey and get our suggestions for development and improvement from loyal customers.

The company's business philosophy is Q (quality), S (service), S (speed), quality is that the online physical game platform we sell must be easy to use, user-friendly, and excellent quality; service is our Customer services such as pre-sales consulting services/after-sales services/ are all quick to give feedback, attentive and thoughtful; speed lies in the response speed of our online physical game platform is good, and the feedback speed of the company's customer service is rapid.

The online physical game platform can be regarded as a branch of the online shopping platform, but it is not the same. We can focus on meeting the preferences of customers and provide customers with a more convenient, friendly and faster online physical game system. Ability to focus on how to improve the quality of your game resources and increase your game sales. In the information age, the reality of physical game stores will be too few people because of the fast pace of life, the online physical game platform will give customers a channel to develop personal or company online sales of physical games, improve sales, and improve themselves Operating income. Therefore, the company's advantage lies in following the trend of social change, and at the same time seizing the customer's reform ideas, which can help customers increase operating income while reducing the economic burden and labor burden of operating physical game stores.

### 1.2 Market Analysis

For the company's business, the underlying market is mainly the changes in the physical game market. When the physical game market changes, it will also have an impact on the business strategy of the physical game store operator, and then the operator may consider expanding or Change the operating channel, that is, turn to the understanding of the online physical game platform.

From 2010 to 2020, the 10 years of China's physical game retail market is the 20 years that the market has developed from immaturity to mature. According to relevant data from the National Bureau of Statistics, the retail sales of physical games reached 71.185 billion yuan in 2018, an increase of 413.72% from 2010. In 2019, the total number of physical games in China reached 6.4 billion, an increase of 29.8% from 2010.

首先我们确定了我们公司的定位

# Company Overview

## Market Analysis

### 1.1 C 1.2 Market Analysis

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之后进行了市场分析,可以看到我们的产品还是有十分广阔市场的

## Company Overview

### Feasibility Analysis

- 
- High-quality low-price competitive advantage of online physical game stores
  - Online physical game store delivery speed is fast
  - Buying customer groups faced by online physical game stores

并且进行了可行性分析，包括如下三点

# Company Overview

## Market Analysis



得出我们项目可行之后我们进行了市场上的可行性分析，包括经济、顾客、竞争对手等多方面因素

# Company Overview

## Market Analysis

Competitor Analysis	Competitive Advantages		Importance
	Factor	This project	
Product	Online physical game platform	Online physical game platform	1
Price	Lower	General	3
Quality	General	General	2
Service	Thoughtful and comprehensive	Thoughtful	3
Reliability	Relatively reliable	Relatively reliable	3
Stability	Stable	Stable	2
Professional knowledge	Profession	Profession	1
Company reputation	Good	General	3
Location	Immobilized	May flow	2
Exterior	Friendly interface and easy operation	Friendly interface	3
Sales method	Portals website	Outsourcing website	2
Ad	Portal website and cooperation website	Outsourcing website	3

比如我这是们进行的市场竞争方面的分析  
这里的细节老师可以参看文档

# Company Overview

## Market Analysis

Job Title	Qualified		Total	Percentage
	Current	Desired		
Project Manager	1	1	2	100%
Sales Executive	2	1	3	100%
Software Engineer	1	1	2	100%
Marketing Specialist	1	1	2	100%
Product Manager	1	1	2	100%
Customer Service Representative	1	1	2	100%
Total	8	8	16	100%

Job Title	Salary (RMB)	
	Current	Desired
Project Manager	14000	15000
Sales Executive	10000	11000
Software Engineer	15000	16000
Marketing Specialist	12000	13000
Product Manager	11000	12000
Customer Service Representative	9000	10000
Total	75000	80000
Average	9375	10000
Median	11000	12000
Min	9000	10000
Max	16000	15000
Client	10000	11000



之后我们制定了我们虚拟公司的一些假设和前置条件，最后我们制定了我们运营公司的一个详尽计划，可以看到我们是从product, office environment, personnel, sales四个方面进行详细分析的

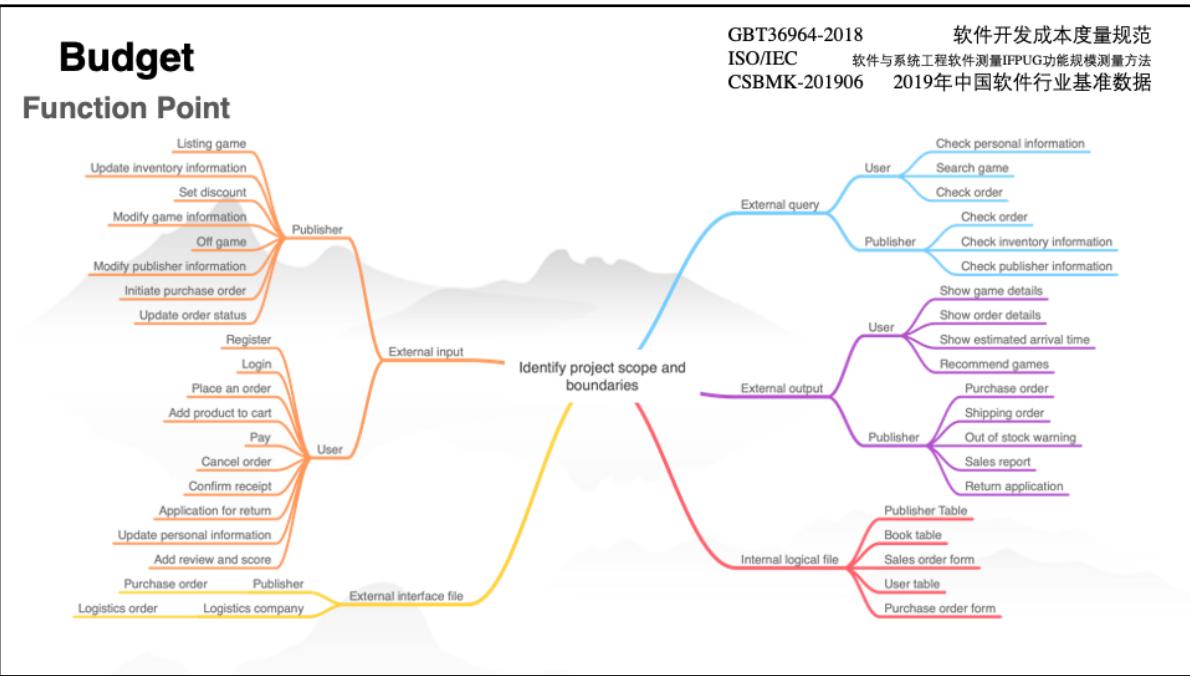
# Budget

第二部分是比较重要的Budget部分

# Budget

## Function Point

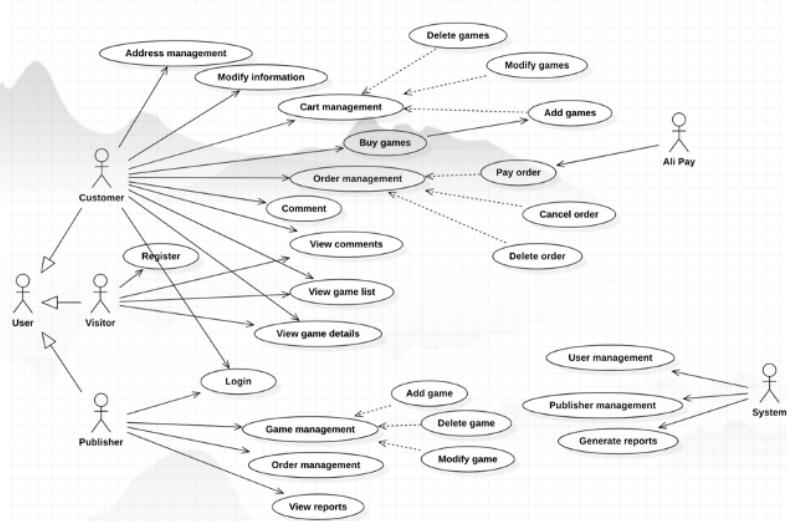
GBT36964-2018 软件开发成本度量规范  
ISO/IEC 软件与系统工程软件测量IFPUG功能规模测量方法  
CSB MK-201906 2019年中国软件行业基准数据



首先我们使用IFPUG标准进行项目function point估计，我们从五个方面进行分析，

## Budget Function Point

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并且利用use case diagram进行可视化观察，

## Budget

### Function Point

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External User Type	Complexity Level									Total UFP	
	Simple			Average			Complex				
	Count	Score	Points	Count	Score	Points	Count	Score	Points		
EI	17	3	51	1	4	4	0	0	0		
EO	9	4	36	0	0	0	0	0	0		
EQ	6	3	18	0	0	0	0	0	0		
ILF	4	7	28	1	10	10	0	0	0		
EIF	2	5	10	0	0	0	0	0	0		
Total UFP			143			14			0	157	

最后得到总的UFP为157，然后我们运用RCAF综合了14个系统特性计算得到总的调整因子为32，最终的VAF由共识计算得到为0.97，最后得到调整后的FP为152.29

## Budget

### Function Point

External User Type	Complexity Level									Total UFP	
	Simple			Average			Complex				
	Count	Score	Points	Count	Score	Points	Count	Score	Points		
EI	17	3	51	1	4	4	0	0	0	157	
DO	9	4	36	0	0	0	0	0	0		
EQ	6	3	18	0	0	0	0	0	0		
RJ	4	7	28	1	10	10	0	0	0		
DF	2	5	10	0	0	0	0	0	0		
Total UFP			143			14			0	157	

$$VAF = 0.65 + (0.01 * \text{SUM(score)}) = 0.97$$

$$FP = UFP * VAF = 152.29$$

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No.	System Characteristic	Score
1	Requirement for reliable backup and recovery	2
2	Requirement for data communication	3
3	Extent of distributed processing	2
4	Performance requirements	5
5	Expected operational environment	2
6	Extent of online data entries	3
7	Extent of multi-screen or multi-operation online data input	0
8	Extent of online updating of master files	2
9	Extent of complex inputs, outputs, online queries and files	1
10	Extent of complex data processing	3
11	Extent that currently developed code can be designed for reuse	3
12	Extent of conversion and installation included in the design	2
13	Extent of multiple installations in an organization and variety of customer organizations	0
14	Extent of change and focus on ease of use	4
<b>Total</b>		<b>32</b>

最后得到总的UFP为157，然后我们运用RCAF综合了14个系统特性计算得到总的调整因子为32，最终的VAF由左边的公式计算得到为0.97，最后得到调整后的FP为152.29

## Budget

### Effort Estimation

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开发

运维

之后我们进行了 Effort 估计，我们区分了开发过程和运维过程的工作量和成本估计并且依照国家标准进行计算，我们以开发过程为例讲解

## Budget

### Effort Estimation



开发

#### 1. Software scale estimation

Scale calculation formula:

$$S = US * CF$$

S: Adjusted scale, unit is function point (FP).

US: Without adjusting the scale, the unit is function point (FP) , which is the calculated above.

CF: The scale change factor, which estimates the later planning stage, takes a value of 1. (Judging from the late estimation of the benchmark data of the Chinese software industry in 2019)

The calculation is:

$$S = 152.29FP$$

首先是项目范围估计 这是我们的计算公式，

## Budget

### Effort Estimation



开发

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ISO/IEC 软件与系统工程软件测量/FPUG功能规模测量方法  
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表 3.1 软件开发生产率基准数据明细

软件开发生产率详细信息（单位：人时/功能点）				
P10	P25	P50	P75	P90
2.29	4.08	7.10	12.37	17.31

2. Adjusted effort estimates

According to the unadjusted workload calculation formula:

$$UE = C * S^a$$

UE: Unadjusted workload, unit is man-hours (ph).

C: Productivity adjustment factor, the median value of software development productivity of industry benchmark data is 7.10 person-hours/FP. (2019 China Software Industry Benchmark Data)

According to the adjustment workload calculation formula:

$$AE = UE * A * IL * L * T$$

AE: Adjusted workload, unit is man-hour (ph).

A: Application field adjustment factor, value range 0.8~1.2, value 1.0 (check parameter table).

IL: Integrity level, value range 1.0~1.8, value 1.1 (check parameter table).

然后根据项目的范围得到了工作量的估计，我们工作量的估计是取了25% ~ 75%间的值作为生产率调整因子，也就是软件开发生产率基准数据

## Budget Cost Estimation

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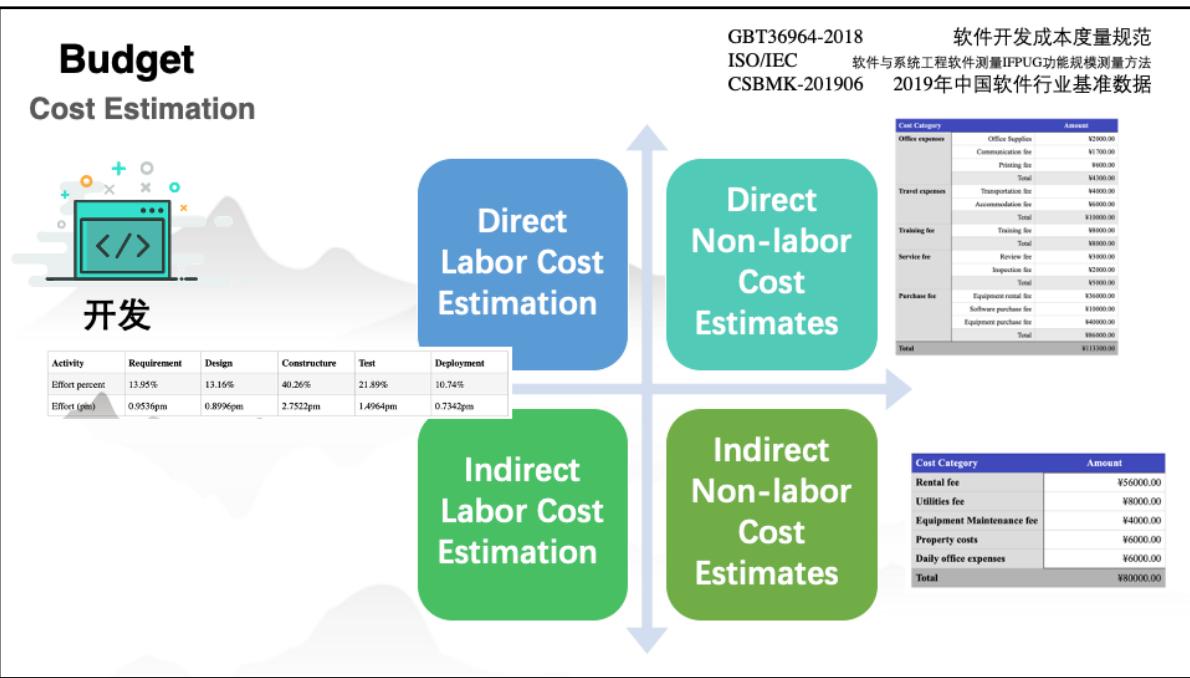


开发



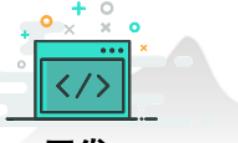
运维

成本估计我们同样分了开发和运维两个部分，以开发部分为例



我们按照国标标准分成四个部分进行计算，直接人力，间接人力，直接非人力，间接非人力，最后计算得到总的开发成本为38854¥，运维与开发的计算方法相同，不再赘述。

## Budget Cost Estimation



开发

GBT36964-2018 软件开发成本度量规范  
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According to the calculation formula of software development cost:

$$SDC = DHC + DNC + IHC + INC$$

*SDC*: Software R&D cost, the unit is yuan;

*DHC*: Direct labor cost, the unit is yuan;

*DNC*: Direct non-labor costs, the unit is yuan;

*IHC*: Indirect labor cost, the unit is yuan;

*INC*: Indirect non-labor costs, the unit is yuan.

Calculated software development cost:

$$SDC = 38854\text{¥}$$

成本估计我们同样分了开发和运维两个部分，以开发部分为例，首先按照国标标准，我们分成四个部分进行计算，直接人力，间接人力，直接非人力，间接非人力，最后计算得到总的开发成本为38854¥，运维与开发的计算方法相同，不再赘述。

# Budget

## Repayment Stratigies

### Equal Principle Repayment

Repayment	Equal Principle Repayment	Total repayment: ¥1073246.00	Total interest: ¥73266.00
Number of Period	Monthly Supply	Monthly Principle	Monthly Interest
1	¥1073246.00	¥1073246.00	¥73266.00
2	¥1073246.00	¥1073246.00	¥73266.00
3	¥1073246.00	¥1073246.00	¥73266.00
4	¥1073246.00	¥1073246.00	¥73266.00
5	¥1073246.00	¥1073246.00	¥73266.00
6	¥1073246.00	¥1073246.00	¥73266.00
7	¥1073246.00	¥1073246.00	¥73266.00
8	¥1073246.00	¥1073246.00	¥73266.00
9	¥1073246.00	¥1073246.00	¥73266.00
10	¥1073246.00	¥1073246.00	¥73266.00
11	¥1073246.00	¥1073246.00	¥73266.00
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14	¥1073246.00	¥1073246.00	¥73266.00
15	¥1073246.00	¥1073246.00	¥73266.00
16	¥1073246.00	¥1073246.00	¥73266.00
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25	¥1073246.00	¥1073246.00	¥73266.00
26	¥1073246.00	¥1073246.00	¥73266.00
27	¥1073246.00	¥1073246.00	¥73266.00
28	¥1073246.00	¥1073246.00	¥73266.00
29	¥1073246.00	¥1073246.00	¥73266.00
30	¥1073246.00	¥1073246.00	¥73266.00
31	¥1073246.00	¥1073246.00	¥73266.00
32	¥1073246.00	¥1073246.00	¥73266.00
33	¥1073246.00	¥1073246.00	¥73266.00
34	¥1073246.00	¥1073246.00	¥73266.00
35	¥1073246.00	¥1073246.00	¥73266.00
36	¥1073246.00	¥1073246.00	¥73266.00
Total	¥1073246.00	¥1073246.00	¥73266.00

Source	Ourselves	ICBC	Total
Amount	¥800000.00	¥1000000.00	¥1800000.00
Type	Originator	Liability	

### Equal Repayment of Principle and Interest

Repayment	Equal Principle Repayment	Total repayment: ¥1074948.48	Total interest: ¥74948.48
Number of Period	Monthly Supply	Monthly Principle	Monthly Interest
1	¥20919.68	¥20919.68	¥74948.48
2	¥20919.68	¥20919.68	¥74948.48
3	¥20919.68	¥20919.68	¥74948.48
4	¥20919.68	¥20919.68	¥74948.48
5	¥20919.68	¥20919.68	¥74948.48
6	¥20919.68	¥20919.68	¥74948.48
7	¥20919.68	¥20919.68	¥74948.48
8	¥20919.68	¥20919.68	¥74948.48
9	¥20919.68	¥20919.68	¥74948.48
10	¥20919.68	¥20919.68	¥74948.48
11	¥20919.68	¥20919.68	¥74948.48
12	¥20919.68	¥20919.68	¥74948.48
13	¥20919.68	¥20919.68	¥74948.48
14	¥20919.68	¥20919.68	¥74948.48
15	¥20919.68	¥20919.68	¥74948.48
16	¥20919.68	¥20919.68	¥74948.48
17	¥20919.68	¥20919.68	¥74948.48
18	¥20919.68	¥20919.68	¥74948.48
19	¥20919.68	¥20919.68	¥74948.48
20	¥20919.68	¥20919.68	¥74948.48
21	¥20919.68	¥20919.68	¥74948.48
22	¥20919.68	¥20919.68	¥74948.48
23	¥20919.68	¥20919.68	¥74948.48
24	¥20919.68	¥20919.68	¥74948.48
25	¥20919.68	¥20919.68	¥74948.48
26	¥20919.68	¥20919.68	¥74948.48
27	¥20919.68	¥20919.68	¥74948.48
28	¥20919.68	¥20919.68	¥74948.48
29	¥20919.68	¥20919.68	¥74948.48
30	¥20919.68	¥20919.68	¥74948.48
31	¥20919.68	¥20919.68	¥74948.48
32	¥20919.68	¥20919.68	¥74948.48
33	¥20919.68	¥20919.68	¥74948.48
34	¥20919.68	¥20919.68	¥74948.48
35	¥20919.68	¥20919.68	¥74948.48
36	¥20919.68	¥20919.68	¥74948.48
Total	¥1074948.48	¥1074948.48	¥74948.48

由于我们从中国工商银行贷款了100w作为启动资金，所以接下来我们对我们的还款进行了一个策略规划，第一种是等额本金的还款策略，第二种是等额本息的还款策略。最终我们比较二者之后选择了等额本息的方法

# **Financial Evaluation**

第三部分是最核心的Financial Evaluation

## Financial Evaluation

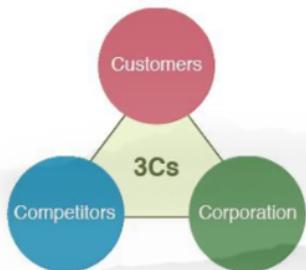
### Factor Affecting Pricing



首先我们进行了我们公司的定价规划，我们研究了老师课上提到的影响价格的八个主要因素，然后我们选取了最为重要的六个因素进行定价分析

## Financial Evaluation

### Pricing Strategy



Mark-up pricing

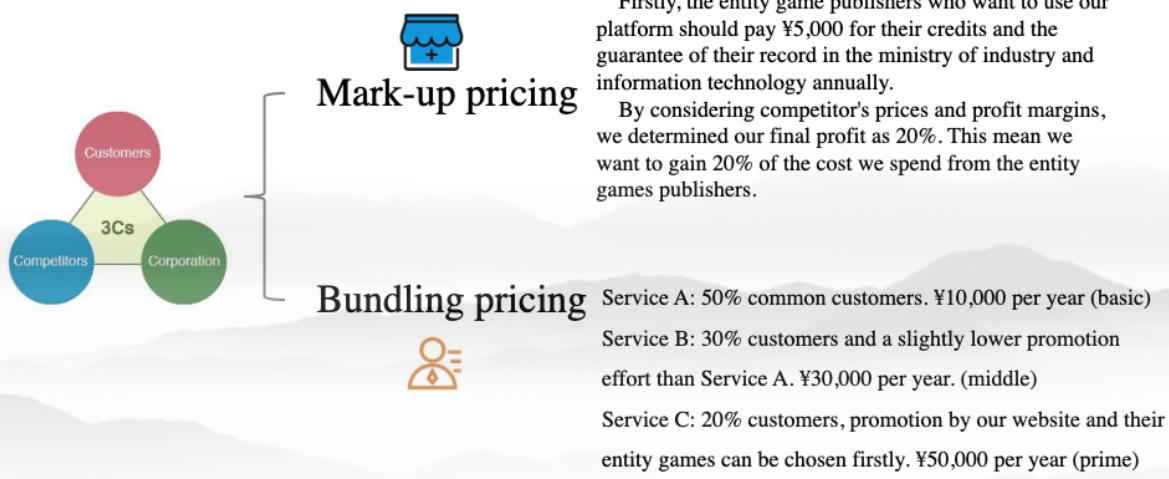
$$\text{Price} = \text{Cost} + \text{ProfitMargin}$$

Bundling pricing

最终我们采用mark-up pricing和bundling pricing相结合的方法，并运用3Cs strategic triangle model进行最终的定价。我们针对entity game的publisher和customer分别定制了不同的价格策略如下。

## Financial Evaluation

### Pricing Strategy



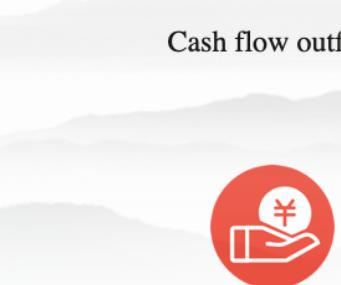
最终我们采用mark-up pricing和bundling pricing相结合的方法，并运用3Cs strategic triangle model进行最终的定价。我们针对entity game的publisher和customer分别定制了不同的价格策略如下。

## Financial Evaluation

### Cash Flow Statement



Cash flow inflows



Cash flow outflow



Operating cash flow



Investing cash flow



Financing cash flow

接下来我们以三年作为我们的公司的一个周期，综合了成本、营收、税务、贷款、利息等多方面因素，以两种不同的视角绘制了cash flow table

第一种主要考虑的是cash flow inflow和outflow

而第二种我们总结并分类不同的流，分为operating, investing, financing三部分进行展开

# Financial Evaluation

## Cash Flow 2020

12 Months Cash Flow of Year 1

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
<b>Cash Flow Inflow</b>												
Sales of Fixed assets and intangible assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales of investment products (such as bonds)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Interest income from investment products	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total product sales	\$0.00	\$0.00	\$0.00	\$0.00	\$200000.00	\$240000.00	\$280000.00	\$320000.00	\$370000.00	\$410000.00	\$450000.00	\$500000.00
Publisher: Rent and Service charge	\$0.00	\$0.00	\$0.00	\$0.00	\$40000.00	\$39000.00	\$40000.00	\$40000.00	\$40000.00	\$40000.00	\$40000.00	\$40000.00
Customer: Transaction draw	\$0.00	\$0.00	\$0.00	\$0.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00
Customer: VIP Service	\$0.00	\$0.00	\$0.00	\$0.00	\$30000.00	\$30000.00	\$30000.00	\$30000.00	\$30000.00	\$30000.00	\$30000.00	\$30000.00
Loan	\$100000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Received Investment	\$100000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Cash Flow Outflow</b>												
Buying of investment products (such as bonds)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Acquisition of fixed assets and intangible assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Development costs	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00
Labor costs	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00
New-labor costs	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00
Operating costs	\$0.00	\$0.00	\$0.00	\$0.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00
Labor costs	\$0.00	\$0.00	\$0.00	\$0.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00
New-labor costs	\$0.00	\$0.00	\$0.00	\$0.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00	-\$195154.00
Loan Repayment	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68	-\$21599.68
Loan Interest	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00	-\$1990.00
VAT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net profit	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00	-\$188454.00
Total Cash Flow Inflow	\$100000.00	\$0.00	\$0.00	\$0.00	\$200000.00	\$240000.00	\$280000.00	\$320000.00	\$370000.00	\$410000.00	\$450000.00	\$500000.00
Total Cash Flow Outflow	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00
Total Net Cash Flow	\$174166.32	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00	-\$415154.00
Cumulative Cash Flow	\$174166.32	\$963354.64	\$3545904.96	\$120727.28	\$289960.00	\$426746.08	\$460482.76	\$472219.44	\$508943.88	\$517037.20	\$524571.42	\$522834.74

Among the development costs, non-labor costs include: office expenses, travel expenses, training expenses, business expenses, and procurement expenses.

According to relevant laws and regulations, VAT will not be charged in the first two years, and 12.5% in the third year.

2020年也就是第一年的现金流图 2021年 2022 年，最终是这三年的一个总体情况，从最后的图例可以看出，我们这三年营收逐步上升

# Financial Evaluation

## Cash Flow 2020



	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
<b>Operating Activities</b>												
Revenue from sales	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
Product Rent and Service charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Customer Transaction fees	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Cash - VAT Tax	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other related to operating income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total of operating income</b>	<b>\$10,000.00</b>											
<b>Investing Activities</b>												
Purchase equipment	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
New labor costs	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
Office expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Transportation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Staff training	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Office expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Equipment and software purchase	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Utilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Employee maintenance fee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Transportation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Staff office expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Bank interest	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VAT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Others related to the operating cash flow(s)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total of operating cash flow</b>	<b>\$0,000.00</b>											
<b>Investing Cash Flow</b>												
Value of fixed and intangible assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Value of investment products (bank or bonds)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Retained income from investment products	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Others related to investing cash flow	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total of investing cash flow</b>	<b>\$0.00</b>											
<b>Financing Cash Flow</b>												
Market Investment	\$0,000,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Bank	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Others related to financing cash flow	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total of financing cash flow</b>	<b>\$0,000,000.00</b>											
<b>Total Cash Flow Before</b>												
Total Cash Flow Before	\$10,000,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Net Cash Flow	\$10,000,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Final Net Cash Flow	\$10,000,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Cumulative Cash Flow	\$10,000,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Adhering to development costs, non-labor costs include office expenses, travel expenses, training expenses, business expansion, and procurement expenses.

According to relevant laws and regulations, VAT will not be charged in the first two years, and 13.0% in the third year.

2020年也就是第一年的现金流图 2021年 2022 年，最终是这三年的一个总体情况，从最后的图例可以看出，我们这三年营收逐步上升

# Financial Evaluation

## Cash Flow 2021



12 Months Cash Flow of Year 2

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
<b>Cash Flow Inflows</b>												
Sale of fixed assets and intangible assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sale of derivative products (such as bonds)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Interest and fees from investment products	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total product sales	\$390000.00	\$500000.00	\$300000.00	\$500000.00	\$390000.00	\$1000000.00	\$500000.00	\$500000.00	\$500000.00	\$500000.00	\$500000.00	\$500000.00
Publisher: Rent and Service charge	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00
Customer: Transaction drew	\$395000.00	\$395000.00	\$305000.00	\$305000.00	\$395000.00	\$395000.00	\$395000.00	\$395000.00	\$395000.00	\$395000.00	\$395000.00	\$395000.00
Customer: VIP Service	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00	\$75000.00
Loss	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Received Investment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Cash Flow Outflow</b>												
Buying of investment products (such as bonds)	-\$450000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Acquisition of fixed assets and intangible assets	\$0.00	-\$100000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Development costs	-\$191154.00	-\$191154.00	\$191154.00	-\$191154.00	\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00
Labor costs	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00
New labor costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operating costs	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00	-\$876723.00
Labor costs	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00	-\$20573.00
New labor costs	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00	-\$951520.00
Change in liabilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Loss Principles Repaid	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00	-\$27177.00
Loss interest	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00	-\$2162.00
VAT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net profit	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00	\$228123.00
Total Cash Flow Inflow	\$390000.00	\$500000.00	\$300000.00	\$500000.00	\$390000.00	\$1000000.00	\$500000.00	\$500000.00	\$500000.00	\$500000.00	\$500000.00	\$500000.00
Total Cash Flow Outflow	-\$450000.00	-\$100000.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00	-\$191154.00
Total Net Cash Flow	\$871098.00	\$41364.00	\$871098.00	\$41364.00	\$871098.00	\$41364.00	\$871098.00	\$41364.00	\$871098.00	\$41364.00	\$871098.00	\$41364.00
Cumulative Cash Flow	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00	\$871098.00

The first month purchased CCB Pure Debt C Fund \$8000 yuan, at the end of the year to three and settle the income.

In the second month, 2 workstations were purchased for a total of \$1,000 yuan.

2020年也就是第一年的现金流图 2021年 2022 年，最终是这三年的一个总体情况，从最后的图例可以看出，我们这三年营收逐步上升

# Financial Evaluation

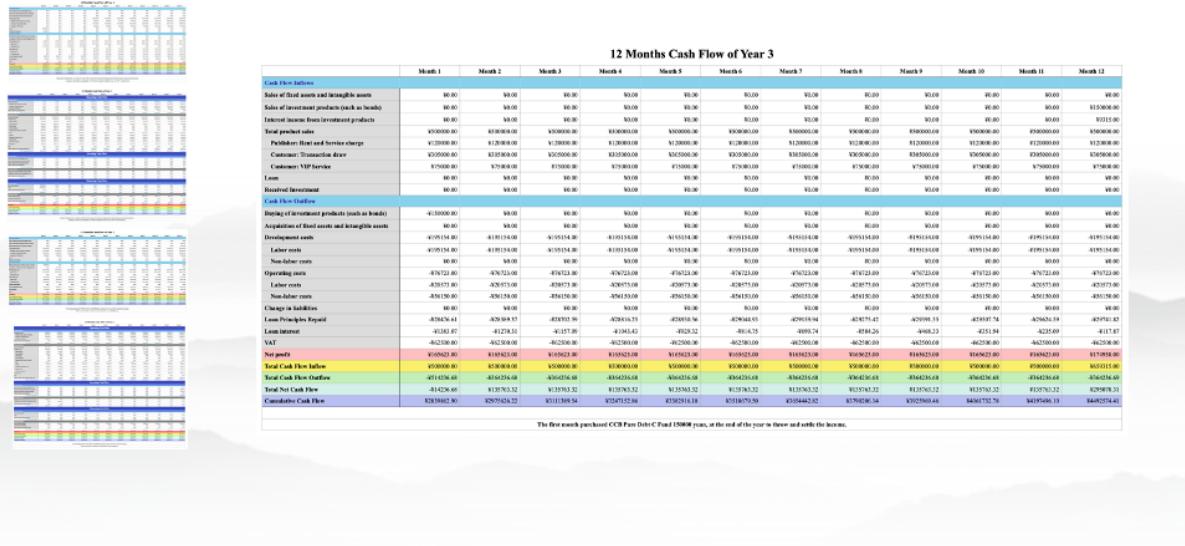
## Cash Flow 2021

12 Months Cash Flow of Year 2												
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
<b>Operating Cash Flow</b>												
Operating income												
Product sales	K12000.00											
Product and service charge	K12000.00											
Customer transaction fees	K12000.00											
Customer VIP service	K12000.00											
Others related to operating income	K12000.00											
Total of operating income	K12000.00											
Personnel costs	-K12000.00											
Salaries	-K12000.00											
Overtime expenses	-K12000.00											
Travel expenses	-K12000.00											
Staff training	-K12000.00											
Service expenses	-K12000.00											
Depreciation and折旧 expense	-K12000.00											
Rent	-K12000.00											
Utilities	-K12000.00											
Equipment maintenance fee	-K12000.00											
Property costs	-K12000.00											
Bank interest expense	-K12000.00											
VAT	-K12000.00											
Others related to the operating cashflow	-K12000.00											
Total of operating cashflow	-K12000.00											
<b>Investing Cash Flow</b>												
Buying of fixed assets and long-term assets	K12000.00											
Intercorp. investment in fixed assets	K12000.00											
Interest income from investment products	K12000.00											
Others related to investing cashflow	K12000.00											
Total of investing cashflow	K12000.00											
<b>Financing Cash Flow</b>												
Dividend payment	K12000.00											
Repayment of loans	-K12000.00											
Dividends	K12000.00											
Interest on loans	K12000.00											
Others related to financing cashflow	K12000.00											
Total of financing cashflow	K12000.00											
<b>Net Profit</b>												
Net profit before tax	K12000.00											
Income tax	-K12000.00											
Net profit after tax	K12000.00											
Total Net Cash Flow	K12000.00											
Changeable Cash Flow	K12000.00											

2020年也就是第一年的现金流图 2021年 2022 年，最终是这三年的一个总体情况，从最后的图例可以看出，我们这三年营收逐步上升

# Financial Evaluation

## Cash Flow 2022



2020年也就是第一年的现金流图 2021年 2022 年，最终是这三年的一个总体情况，从最后的图例可以看出，我们这三年营收逐步上升

# Financial Evaluation

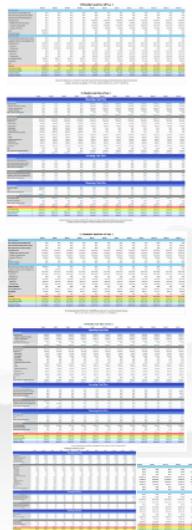
## Cash Flow 2022

12 Months Cash Flow of Year 3											
Operating Cash Flow											
<b>Operating Income</b>											
Product sales	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00
Publication, Rent and Service charge	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00	\$120000.00
Customer Transaction fees	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00	\$100000.00
Others related to operating income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total of operating income</b>	<b>\$300000.00</b>										
<b>Operating Expenses</b>											
Personnel cost	-451777.00	-451777.00	-451777.00	-451777.00	-451777.00	-451777.00	-451777.00	-451777.00	-451777.00	-451777.00	-451777.00
Newspaper costs	-490110.00	-490110.00	-490110.00	-490110.00	-490110.00	-490110.00	-490110.00	-490110.00	-490110.00	-490110.00	-490110.00
Office expenses	-81100.00	-81100.00	-81100.00	-81100.00	-81100.00	-81100.00	-81100.00	-81100.00	-81100.00	-81100.00	-81100.00
Transportation	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00	-10000.00
Marketing	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00
Service expenses	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00
Equipment and Software purchase	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00	-80.00
Rent	-42000.00	-42000.00	-42000.00	-42000.00	-42000.00	-42000.00	-42000.00	-42000.00	-42000.00	-42000.00	-42000.00
Utilities	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00
Depreciation and amortization fee	-8000.00	-8000.00	-8000.00	-8000.00	-8000.00	-8000.00	-8000.00	-8000.00	-8000.00	-8000.00	-8000.00
Property costs	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00
Bank office expenses	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00
Loan interest	-41000.00	-41000.00	-41000.00	-41000.00	-41000.00	-41000.00	-41000.00	-41000.00	-41000.00	-41000.00	-41000.00
Others related to operating activities	-80000.00	-80000.00	-80000.00	-80000.00	-80000.00	-80000.00	-80000.00	-80000.00	-80000.00	-80000.00	-80000.00
<b>Total of operating activities</b>	<b>\$100000.00</b>										
<b>Investing Cash Flow</b>											
<b>Investing Activities</b>											
Sale of fixed assets and intangible assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sale of investment products (such as bonds)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.000000
Acquisition of fixed assets and intangible assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.000000
Others related to investing activities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total of investing activities</b>	<b>\$0.00</b>										
<b>Financing Cash Flow</b>											
<b>Financing Activities</b>											
Capital and Investment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Others related to financing activities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total of financing activities</b>	<b>\$0.00</b>										
<b>Net cash flow from operating activities</b>											
<b>Net cash flow from investing activities</b>	<b>\$100000.00</b>										
<b>Net cash flow from financing activities</b>	<b>\$0.00</b>										
<b>Total Cash Flow</b>	<b>\$100000.00</b>										
<b>Concluding Cash Flow</b>	<b>\$100000.00</b>										

2020年也就是第一年的现金流图 2021年 2022 年，最终是这三年的一个总体情况，从最后的图例可以看出，我们这三年营收逐步上升

## Financial Evaluation

### Cash Flow Total of 3 Years



	2020	2021	2022
<b>Cash Flow Inflows</b>			
Sales of fixed assets and intangible assets	\$0.00	\$0.00	\$0.00
Sales of investment products (such as bonds)	\$0.00	\$50000.00	\$150000.00
Interest income from investment products	\$0.00	\$3105.00	\$9315.00
Total product sales	\$2810000.00	\$6000000.00	\$6000000.00
Loan	\$1000000.00	\$0.00	\$0.00
<b>Cash Flow Outflow</b>			
Buying of investment products (such as bonds)	\$0.00	-\$50000.00	-\$150000.00
Acquisition of fixed assets and intangible assets	\$0.00	-\$51000.00	\$0.00
Development costs	-\$3115048.00	-\$2341848.00	-\$2341848.00
Labor costs	-\$2341848.00	-\$2341848.00	-\$2341848.00
Non-labor costs	-\$773200.00	\$0.00	\$0.00
Operating costs	-\$613784.00	-\$920676.00	-\$920676.00
Labor costs	-\$164584.00	-\$246876.00	-\$246876.00
Non-labor costs	-\$449200.00	-\$673800.00	-\$673800.00
Change in liabilities	-\$317655.44	\$0.00	\$0.00
Loan interest	-\$40677.82	-\$75232.57	-\$9055.20
VAT	\$0.00	\$0.00	-\$75000.00
<b>Net profit</b>	<b>-\$918832.00</b>	<b>\$2740581.00</b>	<b>\$1996791.00</b>
<b>Total Cash Flow Inflow</b>	<b>\$4610000.00</b>	<b>\$6053105.00</b>	<b>\$6159315.00</b>
<b>Total Cash Flow Outflow</b>	<b>-\$4087165.26</b>	<b>-\$3721840.16</b>	<b>-\$4520940.17</b>
<b>Total Net Cash Flow</b>	<b>\$522834.74</b>	<b>\$2331264.84</b>	<b>\$1638474.83</b>
NPV (discount rate 15%)	\$454638.9043	\$1762771.1456	\$1077323.7972
IRR:(guess=8.1)			

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# Financial Evaluation

## Cash Flow Total of 3 Years

3 Years Cash Flow					3 Year Cash Flow Plus				
	Year 1	Year 2	Year 3	Total	Year 1	Year 2	Year 3	Total	
<b>Operating Cash Flow</b>									
Total product sales	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	— Total of operating inflows
Purchase: Rent and Service charge	\$6,740.00	\$6,480.00	\$6,400.00	\$19,620.00	\$6,740.00	\$6,480.00	\$6,400.00	\$19,620.00	
Customer: Transaction fees	\$1,714.00	\$1,600.00	\$1,500.00	\$4,814.00	\$1,714.00	\$1,600.00	\$1,500.00	\$4,814.00	
Customer: Returns	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
Others related to operating inflows	W.C.	W.C.	W.C.	W.C.	W.C.	W.C.	W.C.	W.C.	
<b>Total of operating inflows</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$30,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$30,000.00</b>	
Personnel costs	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	— Total of operating outflows
New labor costs	\$1,120.00	\$1,080.00	\$1,040.00	\$3,240.00	\$1,120.00	\$1,080.00	\$1,040.00	\$3,240.00	
Office expenses	\$1,120.00	\$1,080.00	\$1,040.00	\$3,240.00	\$1,120.00	\$1,080.00	\$1,040.00	\$3,240.00	
Shop expenses	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
Staff training	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
Service expenses	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
Equipment and furniture purchases	Rent	Rent	Rent	Rent	Rent	Rent	Rent	Rent	
Utilities	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
Equipment maintenance fee	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
Depreciation	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
Bank office expenses	\$800.00	\$800.00	\$800.00	\$2,400.00	\$800.00	\$800.00	\$800.00	\$2,400.00	— Total of operating outflows
Loan interest	\$4,000.00	\$4,000.00	\$4,000.00	\$12,000.00	\$4,000.00	\$4,000.00	\$4,000.00	\$12,000.00	
Net	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$3,000.00	
<b>Others related to the operating cashflow</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	
<b>Total of operating cashflows</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$30,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$30,000.00</b>	
<b>Investing Cash Flow</b>									
Investing: Income									
Sale of fixed assets and tangible assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	— Total of investing inflows
Sale of intangible products (such as funds)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Interest income from investment products	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Others related to investing inflows	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
<b>Total of investing cashflows</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	
<b>Financing Cash Flow</b>									
Financing: Income									
Borrowed investment	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	— Total of financing inflows
Loan	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Others related to financing inflows	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
<b>Total of financing cashflows</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$30,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$10,000.00</b>	<b>\$30,000.00</b>	
<b>Net profit</b>									
<b>Total Cash Flow</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$120,000.00</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$120,000.00</b>	
<b>Total Cash Flow Plus</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$120,000.00</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$40,000.00</b>	<b>\$120,000.00</b>	— Cashflow to Cash Plus
Start Up Cost	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	
<b>Financial Cash Flow</b>	<b>\$30,000.00</b>	<b>\$30,000.00</b>	<b>\$30,000.00</b>	<b>\$90,000.00</b>	<b>\$30,000.00</b>	<b>\$30,000.00</b>	<b>\$30,000.00</b>	<b>\$90,000.00</b>	

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## Financial Evaluation

### Depreciation & Amortization

$$\begin{aligned} \text{Depreciation}_{\text{year}(t)} &= a * \text{BookValue}_{\text{year}(t-1)} \\ \text{BookValue}_{\text{year}(t)} &= \text{AcquisitionCost} * (1 - a)^t \end{aligned}$$

Depreciation

End of Year	Depreciation in that year	Book Value at end of year
0		¥40000.00
1	¥4000.00	¥36000.00
2	¥3600.00	¥32400.00
3	¥3240.00	¥29160.00
4	¥2916.00	¥26244.00
5	¥2624.40	¥23619.60

分析完现金流之后我们研究了折旧和摊销，我们开始投入的hardware共¥4w, software1w, 之后分别按照折旧和摊销的公式进行计算，结果如表格所示

## Financial Evaluation

### Depreciation & Amortization

$$\text{Amortization} = \frac{(\text{AcquisitionCost} - \text{SalvageValue})}{\text{Lifespan}}$$

$$\text{BookValue}_{\text{year}(t)} = \text{AcquisitionCost} - (t * \text{Amortization})$$

Amortization		
End of Year	Amortization in that year	Book Value at end of year
0		¥10000.00
1	¥1000.00	¥9000.00
2	¥900.00	¥8100.00
3	¥810.00	¥7290.00
4	¥729.00	¥6561.00
5	¥656.10	¥5904.90

分析完现金流之后我们研究了折旧和摊销，我们开始投入的hardware共¥4w, software1w, 之后分别按照折旧和摊销的公式进行计算，结果如表格所示

# Financial Evaluation

## Profit & Loss

12 Months Profit and Loss Projection

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Total product sales	\$0.00	\$0.00	\$0.00	\$204600.00	\$204600.00	\$204600.00	\$204600.00	\$204600.00	\$204600.00	\$204600.00	\$204600.00	\$204600.00
Product costs	-4195154.00	-4195154.00	-4195154.00	-4195154.00	-4215727.00	-4215727.00	-4215727.00	-4215727.00	-4215727.00	-4215727.00	-4215727.00	-4215727.00
<b>Gross Income</b>	<b>\$1995154.00</b>	<b>-4195154.00</b>										
Office expenses	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00	-40300.00
Travel expenses	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00	-40000.00
Staff training	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00
Server expenses	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00	-4500.00
Equipment and Software purchase	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00	-30000.00
Rent	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00	-45000.00
Utilities	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00
Equipment maintenance fee	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00
Property costs	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00
Daily office expenses	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00	-4000.00
Depreciation	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33	-4333.33
Amortization	-483.33	-483.33	-483.33	-483.33	-483.33	-483.33	-483.33	-483.33	-483.33	-483.33	-483.33	-483.33
<b>Operating Income</b>	<b>\$198876.66</b>	<b>-408876.66</b>										
Loss interest	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00	-42960.00
<b>Income before tax</b>	<b>\$193936.66</b>	<b>-402544.44</b>										
Tax	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Income after tax</b>	<b>\$193936.66</b>	<b>-402544.44</b>										
<b>Other Net Profit</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Net Income</b>	<b>\$192836.66</b>	<b>-402174.14</b>										

之后我们综合了上述几点进行了profit & loss分析

# Financial Evaluation

## Profit & Loss

3 Year Profit and Loss Projection

	Year 1	Year 2	Year 3	Total
<b>Total product sales</b>	¥2810000.00	¥6000000.00	¥6000000.00	¥14810000.00
Product costs	-¥2506432.00	-¥2588724.00	-¥2588724.00	-¥7683880.00
<b>Gross income</b>	<b>¥303568.00</b>	<b>¥3411276.00</b>	<b>¥3411276.00</b>	<b>¥7126120.00</b>
Office expenses	-¥26400.00	-¥13800.00	-¥13800.00	-¥54000.00
Travel expenses	-¥80000.00	-¥60000.00	-¥60000.00	-¥200000.00
Staff training	-¥32000.00	¥0.00	¥0.00	-¥32000.00
Service expenses	-¥20000.00	¥0.00	¥0.00	-¥20000.00
Equipment and Software purchase	-¥34000.00	¥0.00	¥0.00	-¥34000.00
Rent	-¥448000.00	-¥336000.00	-¥336000.00	-¥1120000.00
Utilities	-¥64000.00	-¥48000.00	-¥48000.00	-¥160000.00
Equipment maintenance fee	-¥32000.00	-¥24000.00	-¥24000.00	-¥80000.00
Property costs	-¥48000.00	-¥36000.00	-¥36000.00	-¥120000.00
Daily office expenses	-¥48000.00	-¥36000.00	-¥36000.00	-¥120000.00
Depreciation	-¥4000.00	-¥3600.00	-¥3240.00	-¥10840.00
Amortization	-¥1000.00	-¥900.00	-¥810.00	-¥2710.00
<b>Operating income</b>	<b>-¥843832.00</b>	<b>¥2852976.00</b>	<b>¥2853426.00</b>	<b>¥4862570.00</b>
Loan interest	-¥40677.82	-¥25232.57	-¥9055.20	-¥74965.59
<b>Income before tax</b>	<b>-¥884509.82</b>	<b>¥2827743.43</b>	<b>¥2844370.80</b>	<b>¥4787604.41</b>
Tax	¥0.00	¥0.00	¥355546.35	¥355546.35
<b>Income after tax</b>	<b>-¥884509.82</b>	<b>¥2827743.43</b>	<b>¥3199917.15</b>	<b>¥5143150.76</b>
Other Net Profit	¥0.00	¥0.00	¥0.00	¥0.00
<b>Total Net Income</b>	<b>-¥884509.82</b>	<b>¥2827743.43</b>	<b>¥3199917.15</b>	<b>¥5143150.76</b>

之后我们综合了上述几点进行了profit & loss分析

# Financial Evaluation

## Tax

国家税务总局  
关于软件企业和高新技术企业所得税优惠政策有关规定执行口径等问题的通知  
国税发[2003]82号  
【字体：大 中 小】 打印本页

首页 > 人民币存贷款利率

**人民币贷款利率表**

请选择时间	种类	年利率%
		日期：2015-10-24
一、短期贷款		
	六个月（含）	4.35
	六个月至一年（含）	4.35
二、中长期贷款		
	一至三年（含）	4.75
	三至五年（含）	4.75
	五年以上	4.9

具体利率执行情况请咨询当地工商银行。

各省、自治区、直辖市和计划单列市国家税务局、地方税务局：  
财政部、国家税务总局、海关总署《关于鼓励软件产业和集成电路产业发展有关政策问题的通知》（财税〔2000〕25号，以下简称《通知》）和财政部、国家税务总局《关于进一步鼓励软件产业和集成电路产业发展税收政策的通知》（财税〔2002〕70号）先后发布后，一些地区反映有些政策存在执行口径不统一等问题，经研究，现将有关问题明确如下：

一、《通知》第一条第二款“新办软件生产企业”，是自《通知》生效之日起2000年7月1日以后新办的软件生产企业。2000年7月1日以前成立的软件生产企业，享受新办软件生产企业的免征或减征企业所得税优惠政策。如经过认定属于国家规划布局内重点软件生产企业，可以按照《通知》第一条第三款规定执行。

二、软件生产企业的开始获利年度，是指企业开始经营后第一个有应纳税所得额的年度。企业开办初期有亏损的，可依照税收有关规定逐年结转弥补，以弥补亏损后有应纳税所得额的年度为获利年度。

三、享受《通知》第一条第二款“第一年至第二年免征企业所得税、第三年至第五年减半征收企业所得税”政策的软件生产企业，其减免税年度应从开始获利年度起连续计算，不得因期间发生亏损而推延。

四、对经认定属于新办软件生产企业同时又是国务院批准的高新技术产业开发区内的新办高新技术企业，可以享受新办软件生产企业的减免税优惠。在减税期间，按照15%税率减半计算征收企业所得税；减免税期满后，按15%税率计征企业所得税。

其中公司个人所得税部分我们参考了「国家税务总局」的相关政策

# Financial Evaluation

## Balance Sheet

In intangible assets, we have to think about intellectual assets. Here, we have searched for information about intellectual assets. This is because the value of knowledge assets is difficult to measure, so there is no need to consider amortization.

$$\text{Total Assets} = \text{Total Liabilities} + \text{Total Owner's Equity}$$

Balance Sheet			
	Year 1	Year 2	Year 3
<b>Assets</b>			
Current Assets			
Cash and Cash Equivalents	\$120,000.00	\$200,000.00	\$400,000.00
Temporary Investments	\$0.00	\$0.00	\$0.00
Accounts Receivable	\$0.00	\$0.00	\$0.00
Inventory	\$0.00	\$0.00	\$0.00
Prepaid Expenses	\$0.00	\$0.00	\$0.00
Others	\$0.00	\$0.00	\$0.00
Total Current Assets	\$120,000.00	\$200,000.00	\$400,000.00
Long-term Investments	\$0.00	\$0.00	\$0.00
Others	\$0.00	\$0.00	\$0.00
Fixed Assets			
Equipment	\$400,000.00	\$400,000.00	\$400,000.00
Less Accum Depreciation	-\$400,000.00	-\$400,000.00	-\$400,000.00
Others	\$0.00	\$0.00	\$0.00
Total Fixed Assets	\$0.00	\$0.00	\$0.00
Intangible Assets	\$100,000.00	\$100,000.00	\$100,000.00
Software	\$100,000.00	\$100,000.00	\$100,000.00
Land, Assets Administration	\$0.00	-\$500.00	-\$500.00
Others	\$0.00	\$0.00	\$0.00
Total Assets	\$420,000.00	\$500,000.00	\$800,000.00
<b>Liabilities</b>			
Current Liabilities			
Accounts Payable	\$0.00	\$0.00	\$0.00
Wages Payable	\$0.00	\$0.00	\$0.00
Interest Payable	\$0,000.00	\$0,000.00	\$0,000.00
Tax Payable	\$0.00	\$0.00	\$0.00
Total Current Liabilities	\$0,000.00	\$0,000.00	\$0,000.00
Long-term Liabilities	\$0.00	\$0.00	\$0.00
Others	\$0.00	\$0.00	\$0.00
Total Liabilities	\$0,000.00	\$0,000.00	\$0,000.00
<b>Owner's Equity</b>			
Common Stock	\$0.00	\$0.00	\$0.00
Non Public Capital	\$0.00	\$0.00	\$0.00
Dividends Payable	\$0.00	\$0.00	\$0.00
Retained Earnings	\$100,000.00	\$100,000.00	\$100,000.00
Total Owner's Equity	\$100,000.00	\$100,000.00	\$100,000.00
Total Liabilities and Owner's Equity	\$420,000.00	\$500,000.00	\$800,000.00
Total Liabilities and Owner's Equity = Total Assets	Total	Total	Total

最后我们选定了11月31这一个具体的时间点进行分析，得到了我们公司三年的balance sheet，其中一些约束和考量这里不做详细展开，请老师参考文档

# **Economic Evaluation**

最后一部分我们进行项目 Economic 分析

# Economic Evaluation

## Break-Even Analysis

Break-Even Analysis				
	Year 0	Year 1	Year 2	Year 3
<b>Cost</b>				
Cost	\$1800000.00	\$4087165.26	\$3721840.16	\$4520840.17
Discount factor	1	0.904977376	0.81898405	0.741162036
Discounted costs	\$1800000.00	\$3698792.00	\$3048127.73	\$350675.11
Cumulative costs	\$1800000.00	\$5498792.00	\$8546920.00	\$11897595.00
<b>Benefit</b>				
Benefits	\$0.00	\$4610000.00	\$6053105.00	\$6159315.00
Discount factor	1	0.904977376	0.81898405	0.741162036
Discounted benefits	\$0.00	\$4171945.70	\$4997396.45	\$4565050.45
Cumulative benefits	\$0.00	\$4171946.00	\$9129342.00	\$13694393.00
<b>Difference</b>				
Benefits - Costs	-\$1800000.00	\$522834.74	\$2331264.84	\$1638474.83
Discounted benefits - Discounted costs	-\$1800000.00	\$473153.70	\$1909268.72	\$1214175.34
Cumulative benefits - Cumulative costs	-\$1800000.00	-\$1326846.00	-\$582422.00	-\$1796798.00
Discount rate: 10.5%				

我们根据我们的现金流进行了收支平衡点分析

## Economic Evaluation

NPV IRR Paybackyear

Result	
NPV	¥1796798.00
IRR	73.62%
Payback Year	Year 2

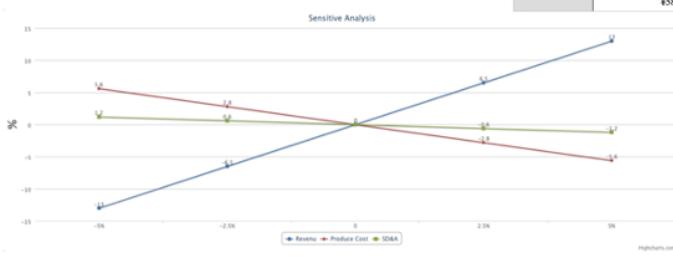
It can be shown from the table that the NPV is greater than 0, indicating that the project is worthwhile to be invest. Also, you can see that the cumulative net cash flow is  $<0$  for the first year and  $>0$  for the second year, so the payback year is in the second year. Finally, the calculated IRR is 73% which is very bigger than the discount rate of 10.5%, indicating that the project is profitable.

以及净现值、内部回报率以及投资回收期的相关计算

## Economic Evaluation

### Sensitivity Analysis

Sensitive Analysis of Year 2				
	Undiscounted Value	% change in UV	PW	% change in PW
Revenue	\$8750449.75	-5%	\$1661398.90	-12.9824609%
	\$9901777.38	-2.5%	\$1785333.81	-6.9412378%
	\$6053105.00	0%	\$1909269.00	0%
Product Cost	\$6204432.63	2.5%	\$2033203.63	6.9412085%
	\$6355760.25	5%	\$2157138.54	12.9824317%
	\$2459287.80	-5%	\$2015274.90	5.5521723%
SG&A	\$2524005.90	-2.5%	\$1962271.81	2.7760788%
	\$2588724.00	0%	\$1909269.00	0%
	\$2653442.10	2.5%	\$1856265.63	-2.7761081%
SG&A	\$2718160.20	5%	\$1803262.54	-5.5522015%
	\$526110.00	-5%	\$1931946.39	1.18777524%
	\$539955.00	-2.5%	\$1920607.56	0.5938689%
SG&A	\$553800.00	0%	\$1909269.00	0%
	\$567645.00	2.5%	\$1897929.89	-0.5938981%
	\$581490.00	5%	\$1886591.05	-1.1877817%



同时以我们的营收、人力支出、杂项支出为变量进行了敏感度分析，发现我们的项目对营收更加敏感。



感谢老师聆听

“ICE”—Online Entity Game Store

第七组  
张喆，陈开昕，卜滴