



INSTITUTO
UNIVERSITÁRIO
DE LISBOA

**Sales plan of
the Drama Digital Technology Company**

Chen Li

Master in Applied Management

Supervisor:
Professor Luis Martins, Invited Professor
ISCTE IUL

August , 2023



Department of Marketing, Operations and General Management

**Sales plan of
the Drama Digital Technology Company**

Chen Li

Master in Applied Management

Supervisor:
Professor Luis Martins, Invited Professor
ISCTE IUL

August, 2023

Acknowledgement

The theme of this thesis is about CG industry. I am very grateful to the professional and rigorous Supervisor Professor Luis Martins for his careful guidance. From the topic selection to the whole thesis writing stage, His professional and accurate opinions helps me a lot, and he also researched my industry, put a lot of effort and time for me. Here I would like to express my highest respect to my Supervisor Professor Luis.

I would also like to thank my lover Lily. As my soul mate and work partner, she gave me great support in data collection and industry analysis. This thesis is dedicated to her to express my gratitude.

Thanks to ISCTE-IUL and our professors and teachers who taught me, their professionalism and knowledge have provided me with an excellent learning platform, and let I have a new understanding of my industry and inspired more excellent ideas.

I would also like to thank my family, friends and work mates for their support and help during this work.

Abstract

The purpose of this Master project is to developing the sales plan for the downturn of Drama Digital Technical Company (DD Company), a CG company located in Shanghai, China.

DD has experienced a huge decline in its operation in the past three years. This thesis will comprehensively analyze the internal and external factors of DD to find out the cause of such obvious business problems in DD's good economic environment in China.

We use the operation data to analyze the company's internal problems, to locate which problems of the existing sales strategy. And we using the AARRR framework to analysis the clients life cycle problem, thought this framework we find out there are two core client life cycles problems in the company's operation, they are the customers acquisition and clients retention.

So we have developed a series of marketing plans, including how to increase the acquisition customers thought the online and offline channel. How to keep the customers retention through the original content release consistently.

Key words: Computer Graphics, downturn, Sales plan

JEL classification: L82, M31

Resumo

O objetivo deste projeto mestre é desenvolver o plano de vendas para a recessão da Drama Digital Technical Company (DD Company), uma empresa de CG localizada em Xangai, China.

A DD experimentou um enorme declínio em sua operação nos últimos três anos. Esta tese analisará de forma abrangente os fatores internos e externos do DD para descobrir a causa de problemas comerciais tão óbvios no bom ambiente econômico do DD na China.

Usamos os dados de operação para analisar os problemas internos da empresa, para localizar quais problemas da estratégia de vendas existente. E nós usamos a estrutura AARRR para analisar o problema do ciclo de vida dos clientes, pensamos nessa estrutura, descobrimos que existem dois problemas principais de ciclo de vida do cliente na operação da empresa, eles são a aquisição de clientes e a retenção de clientes.

Por isso, desenvolvemos uma série de planos de marketing, incluindo como aumentar a aquisição que os clientes pensavam no canal on-line e off-line. Como manter a retenção dos clientes através do lançamento do conteúdo original de forma consistente.

Palavras-chave: Computação Gráfica, Vendas, Causas do problema, Plano de vendas

Classificação JEL: L82, M31

Index

Abstract	I
Resumo	II
Index	III
Table Index	VI
Charts Index	VII
Figures Index	VIII
Glossary	IX
1. Introduction	1
2. Literature Review	3
2.1 The AARRR framework	3
2.2 AARRR framework application	4
2.3 Background of the CG industry	5
2.4 Research Status	6
2.5 Definition of the problem context	7
3. Methodology	10
3.1 Research Objective	10
3.2 Overview of Research Methods	10
3.3 Data Analysis	11
3.4 Survey Analysis	11
3.4.1 The Likert scale	11
3.4.2 Questionnaire definition and design	11
3.5 Population and Sample	13
3.6 Data mining	13
4. Information analysis	14

4.1 External Analysis	14
4.1.1 Industry Background	14
4.1.2 Marketing environmental analysis	16
4.1.3 External Analysis Summary	19
4.2 Internal Analysis	20
4.2.1 Description of the company	20
4.2.2 Company operations	21
4.2.2 Company technical	21
4.2.5.1 Technical capability	21
4.2.5.1 Technical limitation	22
4.2.3 Status of business type	22
4.2.4 Business analysis	23
4.2.5 Product quality analysis	25
4.2.6 Marketing Strategy Analysis	27
4.2.6.2 Activation of new client capacity	32
4.2.6.3 Customer relationship maintenance capability	33
4.2.6.4 Product Quality	34
4.2.6.5 Customer Repurchase and Referrals	35
4.2.6.6 Marketing Strategy Analysis Summary	36
4.2.7 Customer Analysis	36
4.2.7.1 Questions analysis	37
4.2.7.2 Statistical analysis	39
4.2.7.3 Conclusion of customer analysis	40
4.2.8 Internal analysis Summary	41
4.3 SWOT analysis of the company	41
4.3.1 Strengths	41

4.3.2 Weakness	42
4.3.3 Opportunities	42
4.3.4 Threat	42
5. Improvement measures	43
5.1 Marketing Strategy	43
5.1.1 Sales Target	43
5.1.2 Sales Strategy Optimization Scheme	43
5.1.3 Measures to Increase Customer Acquisition Channels	43
5.1.2 Measures to activate new customers	48
5.1.3 Customer relationship maintenance optimization measures	48
5.2.4 Measures to increase customer referrals and repurchase rates	51
5.2 Schedule of Activities	54
5.2.1 Online marketing	55
5.2.2 Offline Marketing	55
5.2.3 Customer Maintenance	56
5.2.4 Incentive plan	56
5.3 Marketing plan budget	56
5.4 Marketing Strategy Summary	57
6. Conclusions	58
6.1 Research Conclusions	58
6.2 Research Limitations	58
6.3 Suggestions for future research	58
Bibliography	61
Appendix	63

Table Index

Table 1 — Company Size/Sales Team Comparison Table	1
Table 2 — Survey Design	12
Table 3 — CG business type corresponds to the type of company	15
Table 4 — CG business corresponds to the type of customer	20
Table 5 — Market share and sales growth rate of DD's main business	24
Table 6 — Description of DD company sales data	26
Table 7 — Survey Result	36
Table 8 — Severity of Problem Score	39
Table 9 — SWOT analysis of DD company	42
Table 10 — DD company's Online Customer Acquisition Program	44
Table 11 — BiliBili video platform content production plan	45
Table 12 — DD & Competitor Original Content Hits Rate competition	47
Table 13 — Customers Visit Rule	51
Table 14 — Marketing strategy optimization plan schedule	55
Table 15 — Marketing plan optimization budget table (2 years)	57

Charts Index

Chart 1 — Histogram of DD's total turnover for the last five years	21
Chart 2 — DD's Business Types Comparison	23
Chart 3 — Boston Model Business Analysis	25
Chart 4 — Repurchase-Customer Satisfaction Categorization Chart	27
Chart 5 — Activity Customers Ratio	33
Chart 6 — Annual Activity customers of DD company	34
Chart 7 — Customer repurchase/referral rate	35
Chart 8 — Marketing Strategy Problem Analysis Pareto Chart	40
Chart 9 — Client Growth/Input Funnel schematic (Person)	51

Figures Index

Figure 1 — The AARRR funnel model	4
Figure 2 — Overview Research framework	10
Figure 3 — The DD company Original Content Cover	45
Figure 4 — DD Original Content data	46
Figure 5 — The Xenrio Ltd. Original Content	46
Figure 6 — Schematic diagram of the customer lifecycle cycle	57

Glossary

4A — The Association of Accredited Advertising Agencies

AR — Augmented Reality

BiliBili — A Chinese professional User Generated Content Video Platform like YouTube

CG — Computer Graphics

Culture & Tech — A Chinese CG big scale company listing on the Stock market

CCTV — China Central Television

DD — Drama Digital Technology Ltd.

FMCG — Fast Moving Consumer Goods

MR — Mixed Reality

Naked eye 3D — It is a general term for the technology to achieve three-dimensional visual effects without the help of external tools such as polarized light glasses.

PUGV — Professional Users Generated Content

Silk Road Visual Technology — A Chinese CG big scale company

TVC — Television commercial

VR — Virtual Reality

WeChat — The biggest Chinese Social contact APP like WhatsApp and Facebook

XinPianChang — A Chinese Professional Video Production Community

1. Introduction

In the digital era, media content has become the theme of many industries, such as online social platforms, entertainment, games, movies, medical and other fields and industries. They have begun to rely on the CG Production to produce media content, and the CG industry has become a very large industry.

In China, CG companies are highly influenced by American special effects companies, and they pay great attention to technology and innovation. As mentioned before, in the production cycle of a project, at least the following steps are taken: communicating scripts, discussing references, designing styles, testing technology, testing effects, actual production, revising over and over again, and submitting the finished product, which are some of the most focused production processes of a CG company. However, the pre-sales and post-sales processes are often under-emphasized in the operating companies, especially in the small and medium-sized companies in the Chinese market.

Below is a comparing the size of the sales teams in difference CG companies. These companies are represent four kind of difference scales in Chinese market. (Table 1)

Table 1 — Company Size/Sales Team Comparison Table

	Company C	Company B	Company J	Company I
Company size (people)	2000	150	150	30
Sales team (people)	6	3	4	1
Percentage	0.3%	2%	2.6%	3%

Source: The author, 2023

The above data proves that CG companies in China are not investing enough human resources in marketing, less than 5 percent of the overall manpower in the sales team, and it also shows that the company's managers do not pay enough attention to it.

For CG companies, high unit price and low consumption frequency are the characteristics of the CG industry, compared to the FMCG industry and the Internet industry, the opportunity cost of acquiring potential customers, to successfully converting sales of

customers will be higher, and the risk of losing a single customer will also be higher. How customers are acquired and how they are lost, how satisfied they are with the program, and what kind of impact they have on conversion and retention rates have a very obvious impact on the revenue of CG companies. Therefore, the customer life cycle is a very worthwhile research issue. We use the data analysis and customer analysis to find out these answers by researching the operation status of DD company, customer data and return visits, etc.

We use the AARRR framework to analysis the client life cycle of DD company's client, and make the sales plan to improve the sales problem.

It is hoped that this research can solve the problem of poor operation due to marketing strategy problems that are common in China's CG industry.

The structure of the project, The first chapter introduces the purpose and background of the research; Chapter 2 conducts a literature review for research; Chapter 3 explains the theory and framework used for research and learning; Chapter 4 Conduct systematic analysis and evaluation of the target company and locate the problem; Chapter 5 has formulated a sales strategy; Chapter 6 introduces the conclusions of this research.

2. Literature Review

2.1 The AARRR framework

The AARRR model is a methodology for researching the customer lifecycle. (Dave McClure, 2007). It includes five definitions of the customer life cycle: Acquisition, Activation, Retention, Referral and Revenue constitute "AARRR".

With AARRR, McClure had a dual goal. First, to show young companies how to narrow their focus to those metrics that can directly impact the health of their business. Second, to help these companies use the right data to measure the success of their product management and marketing efforts, and then improve the initiatives that aren't working.

From «Startup Metrics for Pirates: the AARRR!!!!» McClure (2007) it is mentioned that

The 5 steps to success in the customer lifecycle

Acquisition: Users access the site from a variety of sources

Activation: users enjoy their first visit: a "happy" user experience

Retention: users come back and visit the site several times

Referral: users like enough to recommend the product

Revenue: users engage in payment behaviors. (McClure, 2007, p. 2)

In the book «Growth Hacking» Sean Ellis & Morgan Brown (2020) used the AARRR framework as a main method , to explain how to keep a company's customs growing, in this book's contents they are written like that:

Customer acquisition: optimizing costs and scaling up.

Activation: getting prospects to actually use your product.

Retention: awakening and retaining customers.

Realization: increasing the revenue generated per user.

A virtuous cycle: sustaining and accelerating growth.(Sean Ellis & Morgan Brown, 2020, pp.3)

2.2 AARRR framework application

This model can be seen as a funnel model, where customers are acquired from the top, converting through segment and segment, come to the revenue segment to generate revenue, and reflect the overall transformation effect at the exit. It shown schematically below like a funnel, the customers quantity is reducing in every segment, just like a filter. So what we should do is trying our best to expand the funnel's input and control the filter's reducing in every segment.

In the CG industry, customer conversion behaviors and needs, are extremely similar to this funnel framework, so we will use this approach to systematically research the customer cycle problem in the CG industry and optimize the marketing strategies of CG companies for each part of the funnel model. (Figure 1)

Figure 1 — The AARRR funnel model



Source: McClure, 2007

2.3 Background of the CG industry

Today, in the information age, we are in a world centered on digitization and the Internet. An important feature of this era is the explosive growth of information, with a huge amount of content being generated and disseminated at an astonishing rate every day. In this environment of information overload, content has become a crucial resource, and Bill Gates had already suggested in 1996 that "content is king" (Bill Gates, 1996). which is not only the key to attract and keep users' attention, but also has a profound impact on the development of individuals, enterprises and society. Movie and television as the carrier of content play an important role in the information age. By utilizing the visual, narrative, and social sharing features of film and television, individuals and enterprises can better attract and influence audiences, create valuable content, and gain a competitive advantage in a highly competitive market.

Video platforms are divided into short video and long video platforms, mainly referring to platforms that provide paid or free video download and playback services based on the Internet. In 2018, the market scale of China's short video industry reached 46.71 billion RMB, an increase of 74.47 billion RMB compared with 5.53 billion RMB in 2017 (Deng Qing, 2020). It can be seen that the importance of film and television in the new media.

Film and television production is broadly categorized into two types of production means, camera shooting and computer graphics production, and the company we are researching today belongs to the category of computer graphics production.

Computer graphics production, also known as CG (Computer Graphics), or alternatively known as animation/computer effects, is the research of how images are generated, processed and displayed on a computer. It involves a number of fields such as computer science, mathematics and art, and aims to achieve the simulation, and presentation of images and visual information through algorithms and techniques. CG production supports a number of industries and fields, including film and television production, a huge industry that cannot be separated from CG at all.

Every day there is a huge amount of content that needs to be produced in CG, such as animated shows, architectural visualizations, films, commercials, and even video social

media. According to statistics, between 2022 and 2023, there will be 192 movies released, of which 105, or 55%, will be made in CG. And the full CG production of the movie accounted for 21% of the total number of movies released. It can be seen that CG production has become one of the most important production means for film and television production, and has a very large market capacity. (Source: the author 2023)

Watching film and television dramas is one of the main forms of entertainment in the daily life of the public, and the aesthetic level of the masses is constantly improving. At the same time, the competition in the film and television industry has become more and more intense in recent years, so CG service for film and television dramas is particularly important (Zhang Na, 2023).

2.4 Research Status

China's CG market has always attracted much attention, and this industry is facing huge opportunities and challenges.

First of all, the global CG industry continues to grow, and the Asian market also shows great potential. With the growth of market share at home and abroad, such as Canada, France, the United Kingdom and Australia, some mature local CG industries have been established.

Secondly, China's CG market occupies an important position in the global market and develops dynamically. According to the report released by Zhiyan Consulting, "Research and Development Prospect Analysis of China's CG Market in 2023-2029", it is predicted that China's CG market will continue to maintain rapid growth in the next few years (China's CG Market Current Situation 2023-2029 Research and Development Prospect Analysis Report, 2023). In recent years, with the influence of the animation industry at home and abroad, China's CG industry has risen rapidly. Some enterprises began to try to independently develop 3D games, CG animations, special effects and other content.

At present, China's CG market is developing rapidly, and the future development prospects are also very broad. In the future, China's CG market will show the following trends:

- China's CG market will continue to grow rapidly, and the market size and consumer demand will increase year by year (2016-2022 China CG market status analysis and research report, 2022).

- The consumer demand structure of China's CG market will change, and the middle and high-end market will gradually become the mainstream (analysis report on the current situation and development prospects of China's CG market in 2023-2029, 2023).

- China's CG industry will develop in the direction of internationalization, and the competition pattern will also intensify (2023-2028 China CG industry market in-depth analysis and investment strategy consulting report, 2023).

- The training of CG talents and the protection of intellectual property rights will be the key to the rapid development of the CG industry in the future (The development of the computer graphics and image industry at home and abroad and six major trends, 2023).

Third, the CG industry also faces some problems. Procrastination is a common phenomenon in the CG industry, which affects the cash flow of enterprises and poses a serious challenge to the survival and development of CG companies.

Based on the above, China's CG market has shown a trend of sustainable development. In the face of various problems and challenges, it also has broad development prospects and market potential.

2.5 Definition of the problem context

The CG industry utilizes computer graphics software as a tool for artistic creation, so CG artists are expected to possess not only artistic training, but also skills in both the operation of CG production software. Therefore, generally speaking, most CG production companies are founded by technical or artistic talents.

For example, the world-renowned CG production company Pixar Studios (Pixar), it is the "Star Wars" film series founder/director George Lucas, in order to realize the film's sci-fi visual needs in the year he set up a visual effects company Industrial Light and Magic (ILM) a computer graphics department, and later independently operated, after many years of development of the CG production company, had been Apple Inc. founder Steve Jobs and then changed hands to the Disney Group.

Another example is the famous Digital Domain, which was founded by Cameron, the director of the movie "Titanic", and has produced film and television special effects for many famous movies, and was later acquired by Micheal Bay, the director of the famous "Transformers" movie series. (Cheng Zhen, 2016)

However, behind these well-known CG companies, lies a huge crisis: Mismanagement.

"What Really Happened When 21 Major Hollywood Animation Studios Failed in 10 Years? An article has mentioned that "From 2003-2013, 21 animation/special effects studios in Hollywood filed for bankruptcy. Along with many similar companies that were either on the verge of bankruptcy, owed a high debt to equity ratio, or had to be bought out. This is mainly related to the unsustainable business model of animation production studios." (Cheng Zhen, 2016)

The report "Ang Lee Says High Cost of Special Effects Leads to Discontent" said that the movie "Junior Fantasy Drift" directed by Ang Lee won four awards at the Oscars, but at the same time R&H Studio, the company that produced the CG special effects for the movie, which also won the Oscar for Best Special Effects for "Junior Fantasy Drift", announced that it had gone bankrupt. (Liu Huan, 2013)

CG is a "labor-intensive" company, like a processing plant, which produces on a large scale when it receives an order from a customer.

However, CG companies are not like factories, because factories are highly standardized for large-scale production, and production costs can be effectively reduced through standardized production and large-scale production.

CG companies themselves are also "creative" companies, and their products are highly customized according to the requirements of each ordering director or client. In the production process of a project, at least the following steps are taken: communication scripts, discussion of references, style design, testing techniques, testing effects, actual production, repeated modification, submission of the finished product and other processes, a production cycle can take up to 3 to 6 months (Yu Xiujiang & Wang Liqiang & Sun Yanyong, 2019). In this long production cycle, huge human resources and time are consumed.

The inability to reduce costs due to non-standardized production prevents most CG companies from generating sustainable profits like factories, and once business interruptions occur, or business cycles cannot be effectively controlled, the company cannot continue to grow in a healthy manner.

From the above situation shows that, as a CG company to achieve success, from the product point of view, excellent technology and creativity is indispensable, such as Pixar Animation Studios and Digital Domain are led by the extremely creative director of the

founding, in the market also created an excellent work, and won the honor. However, it is not enough to rely only on excellent works to attract customers. The highly customized nature of CG determines that CG companies are unable to scale up production in an efficient and low-cost way.

Therefore, CG companies' marketing plan is not suitable for the business mode.

3. Methodology

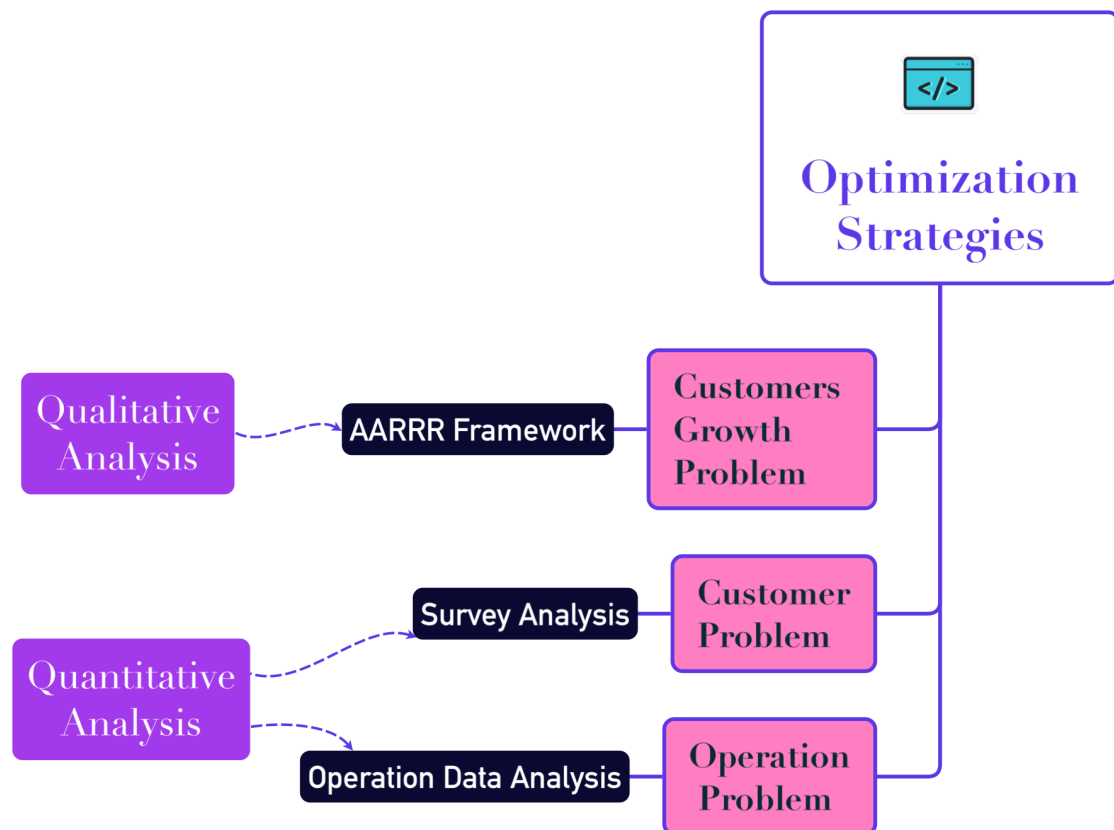
3.1 Research Objective

The purpose of our research is to improve the business problems of DD company, so as to improve business efficiency. Therefore, according to the characteristics of the CG industry, we use qualitative analysis and quantitative analysis to analyze the business situation and customer situation of DD company, and systematically analyze and provide optimization solutions for customer problems.

3.2 Overview of Research Methods

Our research will follow this methods to analysis and optimize the DD company's sales problems. (Figure 2)

Figure 2 — Overview Research framework



Source: The Author, 2023

3.3 Data Analysis

The data research is based on the operation data of DD company in the past five years, including the price data of the order, the customer data of the market team on WeChat, the customer data in the order, etc. In addition to classifying and analyzing the data.

3.4 Survey Analysis

Analyzing a company's customer lifecycle from the customer's subjective perspective helps to quantify and validate the accuracy of the company's internal data analysis from another perspective. While Questionnaire , is a tool for collecting information in social research studies in the form of a question form of systematic Its form is a kind of printout in the form of questions to systematically record the content of the survey, and its essence is a series of questions designed to collect information about people's attitudes and behaviors, characteristic values, opinions or beliefs about a particular issue.

3.4.1The Likert scale

The Likert scale was developed by the American social psychologist Likert in 1932 by improving on the original total plus scale. This scale consists of a set of questions or statements related to a certain topic, and by calculating the total score of each question in the scale, it is possible to understand people's comprehensive attitudes or perceptions of the topic under investigation.

3.4.2 Questionnaire definition and design

Due to the DD company operates in low frequency and high price in the CG industry, especially some of them are repurchased client, so it has totally 36 customers in the five years of data collection. Our survey analysis collected the responses from them.

We have applied the AARRR framework when we design the survey in accordance with the five stages of the client lifecycle of the CG industry, there are five part of the questions, each question has five answer options, the customer survey questions designed to illustrate the following Table (Table 2).

Table 2 — Survey Design

Life Cycle	Objective	Question	Answer Options				
<i>Acquisition</i>	Understanding the Exposure of DD on the internet	How easy is it to find our company on the Internet?	Very easy	Easy	Normal	Not easy	Total can't find
	To know about DD's website functional	How Often have you seen our company's website?	All the time	Quite often	Sometimes	Not really	Not at all
	To know about DD's Social Media functional	Have you opened our WeChat or other Official Social media platform?	All the time	Quite often	Sometimes	Not really	Not at all
<i>Active</i>	To understanding the client's initial communication experience with DD is.	How Effectiveness when we have first the contact communication	Excellent	Good	Normal	Bad	Really bad
	To understanding the client judgement about the quality of DD's portfolio.	How do you think our quality of work (showreel)	Excellent	Good	Normal	Bad	Really bad
	Understanding the judgement of the customer about the price	How do you think our price reasonableness	Very high	High	Normal	Cheap	Very cheap
<i>Retention</i>	Understand the motivation of customers to follow us	When you contact us again just because of...	I have to be	You are a good choice	Try a new vender	Just because of no other choice	I sign it but won't be the next time
	Understanding the frequency of the customer follows us	Paying attention on our website or WeChat Official Account frequency is...	5 times per day	3 times per day	1 times per day	1 times per week	Not at all
<i>Revenue</i>	Understand the motivation of customers to sign contract with us	When you decided to sign the contract with us is because of ...	I have to be	You are a good choice	Try a new vender	Just because of no other choice	I sign it but won't be the next time
<i>Referral</i>	Understand the frequency of customers to recommend us	How many times did you referral to the others?	More than 3 times	3 times	2 times	1 times	Not at all
	Understand the motivation of customers to recommend us	How do you think about us after our cooperation when you recommend to the others?	Excellent	Good	Normal	Bad	Really bad

Source: The Author, 2023

3.5 Population and Sample

The interviewees are customers who have become the cooperation of DD companies. They include customers from various industry types, from 4A advertising agencies, video shooting companies, game companies, museum owners, design companies, event planning companies and car manufacturers. There are 38 guests in the company's five-year data, all of whom were the respondents to the questionnaire survey. Based on the time and space constraints of this study, respondents answered an online survey between May and June 2023..

3.6 Data mining

We have used the company's business data from 2018 to 2022 for five years (2.4 Project Data Sheet) to conduct data mining in a supervised statistical manner, targeting the three patterns of product type, customer type, and price.

To mining The Product Type can understanding the company's strong product, and target the advantageous items. To mining The Customer type can enhance the project with high quality service feedback, predict the win rate in the case of the corresponding customer. The Price can understanding the customer's sensitivity to price, can guide the pricing policy rate.

4. Information analysis

4.1 External Analysis

The company's business activities are affected by various factors in the external environment, the impact of the two main aspects: the conditions to ensure that the activities of the contract, so analyze the company's external environment and the changes in the situation can help to help the company to find new opportunities, to avoid potential risks, and predict the company's future changes in the period of time, to help the company's management team to take advantage of the company's strengths to play the maximum operating capacity.

4.1.1 Industry Background

China has been one of the fastest growing economies in the world for the past 20 years, and the CG industry in China started to emerge in the 90's. With the economic development accompanied by the media industry and the rise of the entertainment industry for more than 20 years, the Chinese market has given birth to a lot of excellent CG companies: for example, Crystal Stone Technology Ltd. has produced a digital art rendering of the opening ceremony of the Olympic Games for the background of the 2008 Olympic Games. (CCTV, 2006). Such as Silkroad Visual Technology Co.,Ltd., Culture & Tech, etc., are excellent domestic listed companies in the CG industry, with many excellent projects in the work, Silkroad Visual Technology Co.,Ltd. current market capitalization of more than 3.014 billion RMB, Culture & Tech market capitalization of more than 8.5 billion RMB (Sina Finance, 2023), these companies almost monopolize the government and real estate developers of large-scale projects. China's market is very open and has attracted some excellent foreign CG companies to invest in it, such as the aforementioned American CG company Digital Domain, which has already opened offices in Beijing, Shanghai, and Shenzhen (Digital Domain Website, 2023), the Korean CG company Digital District, which has already opened in Shanghai, and the veteran American movie production company Technicolor. Digital District, a Korean CG company, has opened in Shanghai, and The Mill, an animation studio of Technicolor Group, a veteran American film production company, has also opened in Shanghai. These foreign-funded CG companies occupy the high-end segment of China's CG film and TV production market.

4.1.1.2 Scope and definition of business in the CG industry

CG industry includes several major segments, film and television advertising, film production, exhibition, games, corresponding to several major segments will appear in different business types of CG companies, their corresponding relationship is (Table 3).

Table 3 — CG business type corresponds to the type of company

CG Business Type	Type of company
TV commercial	Advertising post-production company
filmmaking	Animation Studio / VFX Production Company
Exhibition	Visual communication company, architectural animation company
Entertainment Interaction	Game production company, interactive entertainment company

Source: The Author 2023

The customer types and needs of these four segments are different, and the sources of customers are also different, but because these four segments are all in the same technical category, that is to say, these four types of companies, it is possible to operate across business types. For example, in the aforementioned Silkroad Visual Technology Co.,Ltd. is also cross-business operations, they have a total of digital exhibition business, digital content application business, big data visualization business, AR, VR, MR industrialization applications. (RoyaFlush Financial Research Center, 2023)

4.1.1.3 Introduction to the Characteristics of the CG Industry

CG industry is mainly people-oriented, with few fixed assets, it is a typical asset-light industry, characterized by high order unit price, long cycle, low frequency, high investment and long payback cycle.

From the Culture&Tech's Q4 2022 asset sheet, the fixed assets totaled RMB162,290,000, it only 1.8% of the total valuation (SinaFinance, 2020)

AAA's payback statistics yielded that the business payback rate declined year by year, with the last year's payback rate statistically at 76%. (Xue Bing, 2010)

4.1.2 Marketing environmental analysis

China's CG industry involves a variety of industries such as film, television, games, and advertising. In order to analyze the external environment of China's CG industry, we use the PEST model, which includes political, economic, social and technological aspects to analyze.

4.1.2.1 Political factors

Policies have an important impact on the development of the CG industry. In China, the government is gradually increasing its support for the cultural industry, thus promoting the rapid development of the CG industry. General Secretary Xi Jinping stated, "We should strengthen the construction of public cultural facilities, promote the high-quality development of the cultural industry, and better meet the new expectations of people's spiritual and cultural life" (Xi Jinping, 2023). The People's Daily says, "Create new growth points for the development of cultural industries, and emphasize new modes of cultural consumption through new forms of cultural industries. Actively expand the application boundaries of key scenes in the cultural industry, develop new scenes of "culture +" consumption, promote the integration of online and offline, create more participatory, experiential and comprehensive consumption carriers, and enrich the forms of people's cultural experience and consumption patterns" (Li Yue & Liao Yijun, 2022).). Therefore, under the guidance of the policy, the government provides supportive measures such as policies, funds and tax incentives to promote innovation and investment in the CG industry.

In the other hand, Shanghai city is the central of the whole China market , Shanghai, which is in the economically developed Yangtze River Delta, and is the cultural, economy and technological center of China, so all the world's large-scale enterprises have set up their headquarters in Shanghai. In addition, Shanghai is also one of the most open cities in China, where the best talents in China, including foreign talents, are gathered, so the government always give the good politic to Shanghai, there for, The company located in one of the most developed cities in China,so there are both good market demand and good talents here, as a CG company in Shanghai, has an incomparable competitive advantage in other parts of China.

4.1.2.2 Economic factors

The Chinese economy, along with the rest of the world, was severely affected by the Covid-19 epidemic. After almost 3 years of protests in China, the outbreak was overcome in 2022 and the Chinese market has since recovered rapidly, bringing renewed business opportunities to the CG industry.

For example, in the automobile industry, which was once in a state of depression due to the epidemic, automobile enterprises will launch fierce marketing campaigns after the end of the epidemic, in order to cope with the spurt of consumer spending brought about by the end of the epidemic. In particular, China's new energy vehicle industry is about to enter a fully competitive phase, so demand for CG production from car companies and auto shows will soar. "After three years of hibernation due to the epidemic, China's auto market has finally started to recover in the spring, and the 2023 Shanghai International Automobile Exhibition (SIAE) is undoubtedly the most significant signal for this round of recovery to begin. The 20th Shanghai International Automobile Exhibition was held in Shanghai, as the world's first A-class automobile exhibition this year, and also the largest international automobile exhibition in the post-epidemic era, this year's Shanghai International Automobile Exhibition covered a total exhibition area of more than 360,000 square meters, attracting more than 1,000 mainstream automobile brands at home and abroad, with a cumulative total of 1,500 automobiles in the exhibition, of which more than 150 are new premiere automobiles. Not only that, the biggest change of this year's Shanghai Auto Show is that it is not only the biggest local auto event in China, but also has unprecedented influence in the world" (Cover News, 2023).

4.1.2.3 Social factors

Social factors have a significant impact on the development of the CG industry. The demand for digital entertainment and gaming continues to grow among the younger generation in China, which is driving the rapid development of the CG industry. It has been reported that eSports will be an official sport at the 20th Nagoya Asian Games in 2026 (The Paper News, 2023), which shows that in China video games have not only become the main entertainment

pastime of the people in this era, but also recognized as a new sport and competitive activity. Therefore, the economic market of video games in China is very huge. The 2022 China Game Industry Report shows that the actual sales revenue of China's game market in 2022 will be 265.884 billion RMB, and the scale of game users will be 664 million RMB (Worker's Daily, 2023), which is a huge demand for games and provides a broad market for the CG industry.

By the cause of that, big media social platforms are fast growing, Bilibili, TicTalk etc are growing up, these media social platforms are constant raising up big amount of small size studios, they are becoming DD's competitors, sharing the same segment of the market, and serving the same type of customers, if DD does not have the scale effect, both price advantage and product quality will not be able to maintain a long-term competitive advantage.

4.1.2.4 Technical factors

Continuous advancement in technology is a key driver of the CG industry. Significant breakthroughs have been made in technological fields such as artificial intelligence and virtual reality, providing new markets for the CG industry.

Artificial Intelligence is one of the biggest breakthroughs in recent years, through the development of large model technology, AI can basically replace some of the human positions to serve people, such as assistants, operators, guides, consulting and other positions, but also because of this, the concept of "digital human" was raised, AI needs to have a more acceptable "human-like appearance", so through CG means to realize the simulation of digital human will become a huge demand in the CG market. Because of this, the concept of "digital human" has been raised, and artificial intelligence needs to have a more acceptable "human-like appearance", so the simulation of digital human realized through CG means will become a huge demand in the CG market. In addition, AI can also provide high efficiency help for CG production, which will realize unimaginable changes to the traditional CG production process, such as: real-time keying, which used to require a lot of manpower and time to be completed perfectly, will be completed by AI in dozens of seconds or even seconds. Another example, CG expression animation, this in the traditional process needs to operate a wealth of senior animators to spend a number of days to produce a number of seconds length of animation, now with the help of artificial intelligence technology, only a paragraph of text can be quickly generated in more than a dozen seconds of high-quality expression animation. Another

example, artificial intelligence painting, which in the traditional industry requires repeated communication between the director and the concept designer, in the drawing of a week to see a picture, so a set of game art settings or an animated film art settings need to spend a number of months or even a year to complete, and now with the help of artificial intelligence painting technology, through a simple text description can be drawn in more than a dozen seconds of masterpieces, which into a thousand-fold increase in efficiency will undoubtedly make the CCTV industry more efficient. This thousand-fold increase in efficiency has undoubtedly given a huge boost to the efficiency and cost reduction of the CG industry.

Overall, China's CG industry faces a number of opportunities and challenges. The government's supportive policies and the economic recovery after the epidemic have provided a favorable development environment for the CG industry, while the society's increasing demand for digital entertainment and cultural products has provided a broad market for the industry. However, fierce competition, rapid technological change and intellectual property protection are also challenges to the development of the industry.

4.1.3 External Analysis Summary

DD has both opportunities and threat in the Chinese market, with the company's technological strength can maintain a short-term technological advantage, but in the long run, although the market soil is fertile enough, but in order to maintain competitiveness in the market segments where we are located, it is not enough just to go along with the technology route, although we have a certain degree of technological advantage as well as cost advantage, and are located in a large market with a momentum of growth, but we still need to Despite having certain technological and cost advantages, and being in a large market with growth momentum, we still need to proactively address the company's missing marketing capabilities and maintain customer growth in order for the company to continue to grow steadily.

4.2 Internal Analysis

4.2.1 Description of the company

4.2.1.1 Company Background

DD company is a CG production company founded in 2013, located in Shanghai China, founded by a CG artist and advertising director who has been practicing for fifteen years. The company has a production department, a planning department, a technical department, an Design department, and no Sales department.

DD's main businesses: advertising film and television, commercial display, exhibition halls. (Table 4).

Table 4 — CG business corresponds to the type of customer

Business Type	Client Type
TV commercial	4A Advertising Agencies, Advertising Production Companies, Brand Clients
Business Showcase	4A Advertising Agencies, Advertising Production Companies, Brand Clients
Exhibition hall	Government departments, large corporate clients, environmental design companies, exhibition companies

Source: The author, 2023

4.2.1.2 Company History

In 2013, we started our advertising CG production business by taking on advertisement production companies, and then we started our advertising business by taking on all types of advertisement productions for 4A and terminal brands, and started our advertising business for all types of clients.

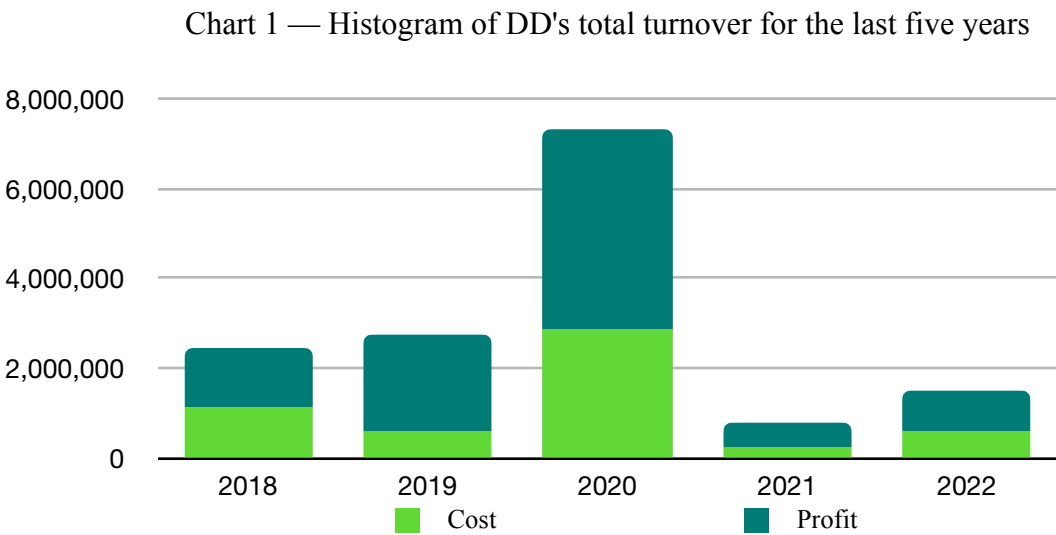
In 2017, through several years of accumulation of advertising film and television production, we began to involve in large-scale commercial display business, such as automobile exhibitions, commercial touring exhibitions, etc., and took a step towards multi-business operation, gradually broadening the scope of business.

In 2019, based on the maturity of the commercial display business, gradually penetrated into the long-term exhibition hall type business, responsible for the production of exhibition

halls of some government clients, and had successfully planned and produced the digital content of China's first national animation museum, which was widely praised.

4.2.2 Company operations

At the beginning of 2020, the Company's operating revenues experienced a tremendous decline of approximately 65%, a sharp drop in new customers and a significant decrease in repeat customers, and the Company's marketing strategy was in dire need of optimization. (Chart 1)



Source: DD company, 2023

4.2.2 Company technical

4.2.5.1 Technical capability

From the technical research and development capabilities, the company team has been groping and learning the most cutting-edge CG technology and peripheral related technologies, such as in the VR technology in 2015 as early as the technical layout, and thus invented a series of VR shooting technology program, get the national patent certification, and thus entered the new field of CG-VR, through the technical basis of the design of the VR business field of CG.

In 2022, he ventured into the field of digital human production, combining motion capture, facial expression capture and Unreal (Epic Games) real-time game rendering engine to successfully produce realistic digital humans and get orders from virtual anchors.

With the continuous exploration and development of new technologies, so that the company is always in the CG rapid technological iteration of today's not be eliminated, but also because of this technical research and development strength, to establish a technological advantage.

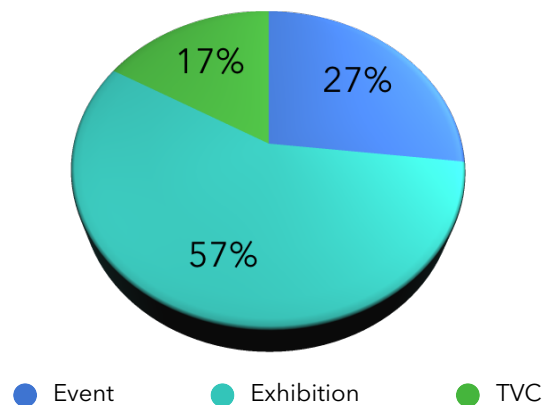
4.2.5.1 Technical limitation

From a technological perspective, maintaining technological innovation and technological iteration is a short-term advantage, as competitors can also have the ability to innovate technologically. For example, in recent years, the Unreal game engine has impacted every aspect of the traditional CG production line, and through this huge technological reform, CG companies can produce CG content quickly and efficiently, and a large number of companies have begun to re-layout their production lines based on the Unreal game engine, while the original flexibility and low-cost advantages of small studios have disappeared in this wave of technological iteration, and workflows accumulated over the years are facing a complete overhaul due to the application of new technologies. The original flexibility and low-cost advantages of small studios were lost in this wave of technological iteration, and the workflow accumulated over the years faced a complete overhaul due to the application of new technologies, which required more time to re-establish technological barriers and find out the technological advantages to differentiate themselves from their competitors in the process. Therefore, the company faces a considerable threat from the entry of new competitors and the wave of technology iteration.

4.2.3 Status of business type

From the chart 3, it can be seen that the exhibition business is 130% higher than the sum of the other businesses, and the performance is particularly outstanding, as the main source of revenue, and growth trend of DD, in the business focus strategy, the exhibition business is the company focus on the development of the business. (Chart 2)

Chart 2 — DD's Business Types Comparison



Source: The Author, 2023

4.2.4 Business analysis

In view of the above business situation, we use the Boston Matrix to analyze each business situation of DD: Boston Matrix analysis can help us to analyze each business situation at a macro level from the company's business data. Referring to the principle of Boston Matrix analysis, we analyze the business from two aspects: market attraction (core indicator of external factors - sales growth rate) and corporate strength (core indicator of internal factors - market share).

According to the report of Shanghai Bureau of Statistics, Shanghai's event market size in 2020 was 72.62 billion US dollars, equivalent to 531.8 billion RMB, of which CG applications accounted for about 7%. The market size of Exhibition is 489 billion RMB, and CG applications account for about 9%. (Shanghai Bureau of Statistics, 2021)

Sina Finance reported that the market size of Shanghai TVC in 2021 was 235.5 billion RMB, with CG production accounting for about 14%. (Sina Finance, 2022)

From the operation data of the DD company in last 5 years, we calculated the average growth rate of each business type. (Appendix B, C, D)

According to the market situation and industry characteristics, the sales growth rate is defined as 30% growth rate as the dividing line, and the market share is defined as 0.01% as the judgment standard. (Table 5)

Table 5 — Market share and sales growth rate of DD's main business

Business type	Market amount (RMB)	DD amount (RMB)	Average market share	Average growth rate
TVC	32,697,000,000	3,346,924	0.01%	9%
Exhibition	44,000,000,000	8,020,000	0.018%	120%
Event	37,112,600,000	4,140,000	0.011%	-24%

Source: The Author, 2023

A. Star Business Exhibition

The company's star business is Exhibition, with a high market share and high growth rate. Exhibition is a fast-growing business in China because the Chinese government is vigorously developing the cultural industry to promote Chinese culture, so governments and organizations around the world are carrying out the construction of exhibition halls/museums, and therefore the company needs to put its good team talents and resources in this business to create revenue by taking advantage of the high profit margins of this business, which is a promising business prospect. Utilizing the high profitability of this business to create revenue for the company, the business development prospect is relatively optimistic

B. Cash Cow Business Event

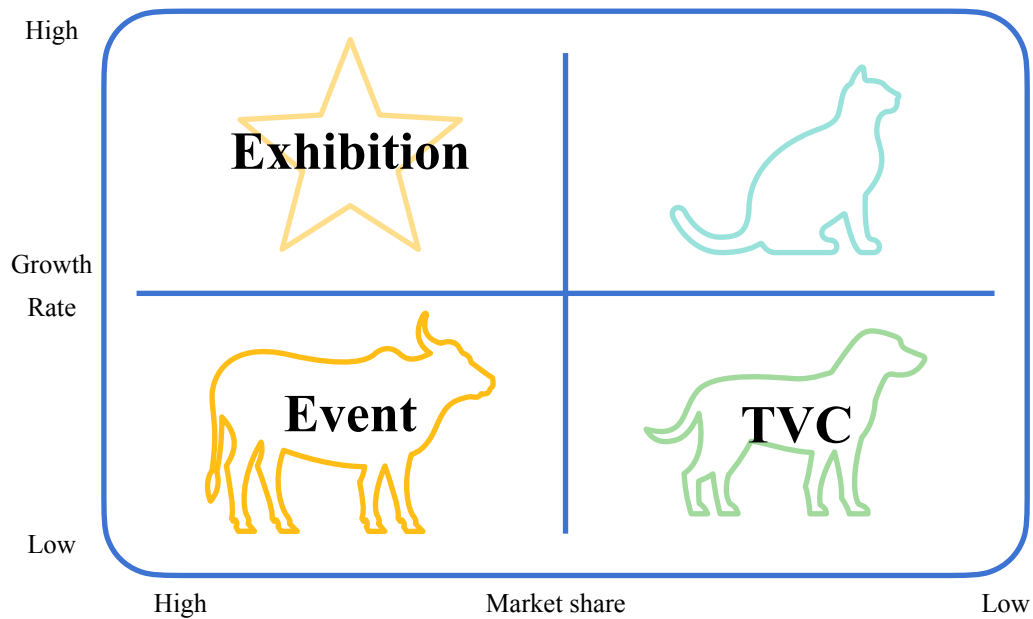
The company's Cash Cow business is Event, which has a high market share but a negative growth rate. This business is the company's mature business, which has become saturated with demand in the EVENT market (especially car shows), and there are more and more competitors entering the market, especially small studios, so the competition is getting more and more intense, and the business has very limited growth prospects.

C. Thin Dog Operations TVC

The company's TVC business is a thin dog business, with low share and low growth rate, all because TVC as an advertising medium has been gradually replaced by video social media, the traditional TV advertising has become smaller and smaller, and the influence has become lower and lower, and now, almost no one watches TV, so TVC has gradually

faded out of the market. Therefore the company should gradually transfer the resources of this business to other business rapidly. (Chart 3)

Chart 3 — Boston Model Business Analysis



Source: The author, 2023

4.2.5 Product quality analysis

DD's product is the content of the CG films they produce for the clients they serve. We have compiled the following data description based on the characteristics of DD's business data over a five-year period.

Based on the description of the data (table 6), the five years of sales data from DD were organized into a total of 58 samples with six data dimensions. We make a Description of the ranking Customers, Business Type, Advertising Subject Type, Price and Margin Level, resulting in the following data statistics (Appendix A).

Table 6 — Description of DD company sales data

Ranking	Customers	Business	Advertising Subject Type	Price	Price Level	Margin Level
1	Production company	TVC	Fast-selling	Within 100,000	Within 50,000	Within 20%
2	Advertising/ Campaign Agents	Event	Car	Within 300,000	Within 100,000	Within 40%
3	Museums	Exhibition	Other	Within 500,000	Within 200,000	60% or less
4	Design company		Real estate	Within a million.	Within half a million	80% or less
5	Else		Exhibition type	Over a million.	More than half a million	Within 100%

Source: The Author, 2023

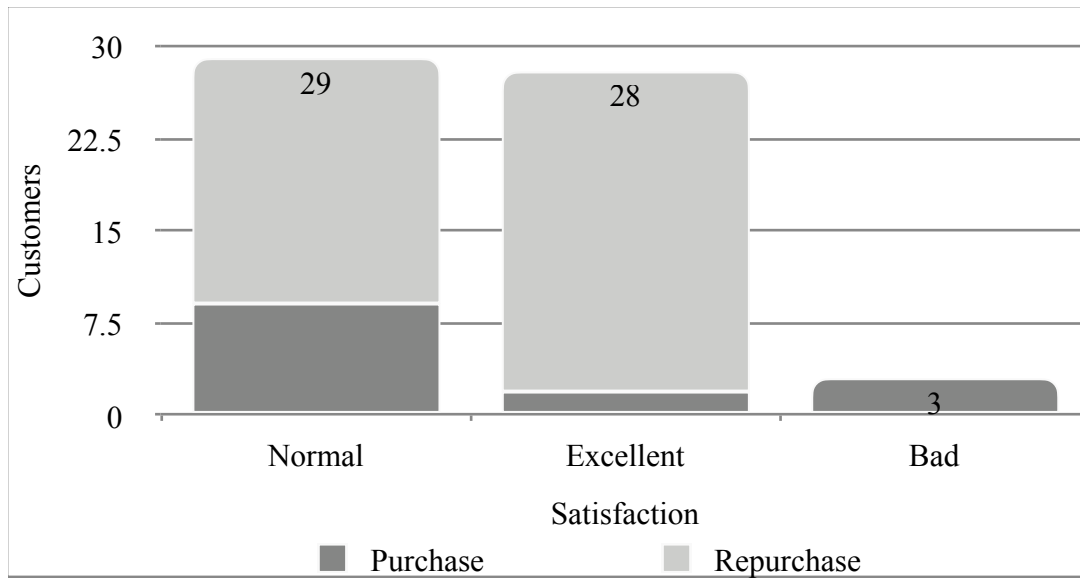
Through the data, we hopes to find out the customer's purchase behavior rules and feedback data to analyze the quality status of various categories of CG products. The data are classified by the data analysis software Weka3.86.

We let the software to statist by the customers feedback classification, there are 3 values of the feedback, they are NORMAL, EXCELLENT, BAD. The statistical results are we can find out there are tow laws about the clients repurchase behavior: (Chart 4)

A, Bad customer feedback data is very small, about 5% of all. It shows that the company's overall product quality is not bad, and the bad customer feedback comes from individual anomalous data.

B, customer repurchase rate is positively related to positive feedback, the better the feedback , the higher the repurchase rate.

Chart 4 — Repurchase-Customer Satisfaction Categorization Chart



Source: The Author, 2023

4.2.6 Marketing Strategy Analysis

Customer growth is a marketing problem that DD faces that needs to be solved. According to the AARRR framework theory, we categorize the customer lifecycle into five stages: acquisition of leads, activation of new customers, customer relationship maintenance, product delivery and revenue, customer repurchase, and referrals. Therefore, we analyze and discuss the following stages of the company's customer marketing in depth.

4.2.6.1 Ability to acquire potential clients

First is the analysis of customer acquisition channels, which is the first part of how to let the target potential customers know Drama for the first time. The company's promotion and publicity measures are currently focused on two channels, online publicity and offline promotion.

Next is the analysis of customer acquisition strategy, that is, whether the publicity and promotion strategy formulated for the nature of CG's business, customer characteristics, etc., is appropriate and effective.

4.2.6.1.1 Analysis of customer acquisition channels

4.2.6.1.1.1 Online publicity

There are five online publicity tools currently used by the company, including website, WeChat Official Account, Vimeo video sharing platform, XinPianChang media production resource platform.

A. Website clicks from now on can not be estimated, this is also in the establishment of the company's website has not been set up at the beginning of the click-through rate statistics, this is when the management ignored the importance of data and the importance of marketing for the company's resulting in the company's website is not set up in the company's website of customer conversion measures, such as attention to the company's WeChat Official Account, call the sales consulting phone number, etc., so it can be defaulted that, in all the visit to the company website of potential customers can be effectively converted to zero. Company website of potential customers can be effectively converted rate is zero, that is to say, the function of the site is not effectively play.

B. WeChat Official Account is a marketing tool launched by WeChat, it is different from Twitter and Instagram, it is a personal or business information display platform, including online communication, product display, and culture dissemination. WeChat and WeChat Official Account are data linked, so our personal WeChat contacts will be actively channeled to WeChat Official Account, become the Traffic entrance. The specific transmission characteristics and powerful development functions of Official Account, graphic, voice, video, etc. are supported, which helps media companies to release portfolios and project highlights, as long as customers pay attention to the company's Official Account, other people interested in it will naturally become fans of the Official Account, and can also get the desired resources from WeChat Official Account, so WeChat Official Account is the most commonly used and important marketing tool in China's today's Internet One of them. The company's WeChat Official Account was established in 2015, at present the main content on it is the company's major time as well as technological breakthroughs and other information, such as the company's participation in the CES Asia report, the company's new VR technology report, the company's comprehensive portfolio of clips, each article does not have more than 50 clicks, belonging to a very low. There are two ways to analyze this situation. The first one is that

the customer's interest in the content is not high, and the reporting of technological breakthroughs and technology demonstrations are not matching for the customer's needs. The second is the lack of rich company work display, customer demand is to see more types of work, so much so that when they have a movie demand, they can find the matching type of work from the company's portfolio, thus proving that Drama has the ability to produce the corresponding movie demand, so as to achieve the purpose of converting to the next link. Therefore WeChat as a customer acquisition channel is also currently ineffective.

C. Vimeo, a video sharing platform for visual creations, has a large number of visual artists, CG production peers and other creators on it, and is a website often used by the CG production industry. On this platform, Drama has the most complete display of works, and after screening and categorization, more than 5 categories of works are displayed, totaling more than 50 videos. However, the operation team overlooked a directional error, that is, the Vimeo platform itself is a display platform for peer creators, and the purpose of their establishment is to allow creators to find more creative inspiration and expand their horizons through Vimeo, so the target population of Vimeo is basically in the same industry, which is not the same group of people as the target customer population matched by the company, so even though the company's work library on Vimeo has the most complete display of works, after screening and categorization, a total of more than 5 categories of works were displayed, totaling 50 videos. Therefore, even though about 10% of the videos in the company's library on Vimeo have more than 500 hits, they still don't play a good role in customer acquisition.

D. XinPianChang Media Production Resource Platform, a display platform that integrates media production resources in China, is a professional community of creators in China, providing creators with services such as work display, interactive exchanges, film and television teaching, material trading, and film and television creation tools. The company's display of its work on XinPianChang is slightly streamlined, with only a portion of its work, about 27 videos, uploaded with the best customer feedback. As a marketing tool for the company, the XinPianChang has two main roles. The first is that the target users of the XinPianChang cover the entire supply chain of film and television production, including the publicity department of the client, directors, advertising

agencies, film and television production companies, CG companies, and sound recording companies, making it an ideal platform for promotion. Secondly, as a tool to show the works pushed by designated customers, we can select works from the XinPianChang according to the needs of customers and send links via WeChat or e-mail, which is very convenient. According to the statistics of the new film studio system, the highest playback is the advertisement work with Y star, and the light and shadow show work in the Forbidden City of China, with a click rate of more than 6,000, the high playback of these two works is due to the attractiveness of the title of the movie and the Y star advertisement in the media broadcasting cycle is relatively long, the social influence is relatively large, which is really helpful to enhance the image of the company, the company has been successfully converted to the same type of advertising business because of the Y star advertisement, so the company has successfully converted to the same type of advertising business. The company once successfully converted an advertisement of the same type because of the Y-star advertisement, so this customer acquisition channel is effective.

4.2.6.1.1.2 Offline promotion

Mainly refers to visiting new customers and attending exhibitions.

A. Visiting new customers, the company's marketing staff will visit new potential customers, using the company's introduction, portfolio, creator resume and other information to introduce the company's situation and get customers to contact. According to incomplete statistics, the company in the period of 2021-2023, visit activities no more than 5 times, including exhibition design companies, trade companies, public relations activities, these visits to the customer are basically retained, but has not yet been further converted.

B. , the only exhibition the Company has participated in so far is the CES Asia 2017 Consumer Electronics Show. The International Consumer Electronics Show (International Consumer Electronics Show, or CES), organized by the Consumer Electronics Manufacturers Association (CEMA), aims to promote the close integration of cutting-edge electronics technology and modern life. It is the world's largest and most widely influential annual exhibition of consumer electronics technology and the world's largest consumer technology industry event. The exhibition is highly specialized, with good trade results,

and enjoys considerable popularity in the world (Wikipedia, 2015). The purpose of the company's participation in the exhibition is to promote the company's new technological solutions in the field of VR filming through the trend of VR technology and to establish a high-tech image. During this exhibition, the company exhibited VR flying chair and VR shooting stabilizer, which got wide attention. According to incomplete statistics, about 1,500 people came to the company's booth to watch the exhibition in three days, and about 10% of the customers were activated and 3% of the customers were retained. The company spent about ¥70,000 on the exhibition, the cost of getting potential customers is about ¥46, and the cost of retention is about ¥155. Although the promotion effect of the exhibition is good, the cost of customer acquisition is high.

4.2.6.1.2 Customer Acquisition Strategy Analysis

The needs of CG industry customers are to obtain CG movie production services that meet the production requirements and quality at the lowest possible cost, and to obtain CG movies that meet the production expectations. Therefore, the customer acquisition strategy should be in line with the above customer needs, in addition to showing the technology itself, which can improve the company's image, but also need to show more types of portfolios to suit more types of customer needs. The company does not consider the target customer population in the selection of platforms to do online publicity on this channel. On the other hand, in the networking platform, it is more important to promote more types of works and keep updating, so as to let the people around us keep active and increase their interest, so as to get potential customers. In the industry platform has a more accurate target group, the company did the right direction in this regard and the initial results, but due to the slow update of the work caused by the traffic can not be sustained, so the attention will be pulled down.

The offline side has only participated in one exhibition, but the data is enough to prove that the promotion in this direction is not in line with the spirit of the AARRR model of customer acquisition: the channels of promotion must be in line with, as low-cost or even free as possible, as large as possible, and as efficient as possible to acquire customers (McClure, 2007). The walk-in customers are less efficient and are not suitable in the customer acquisition segment.

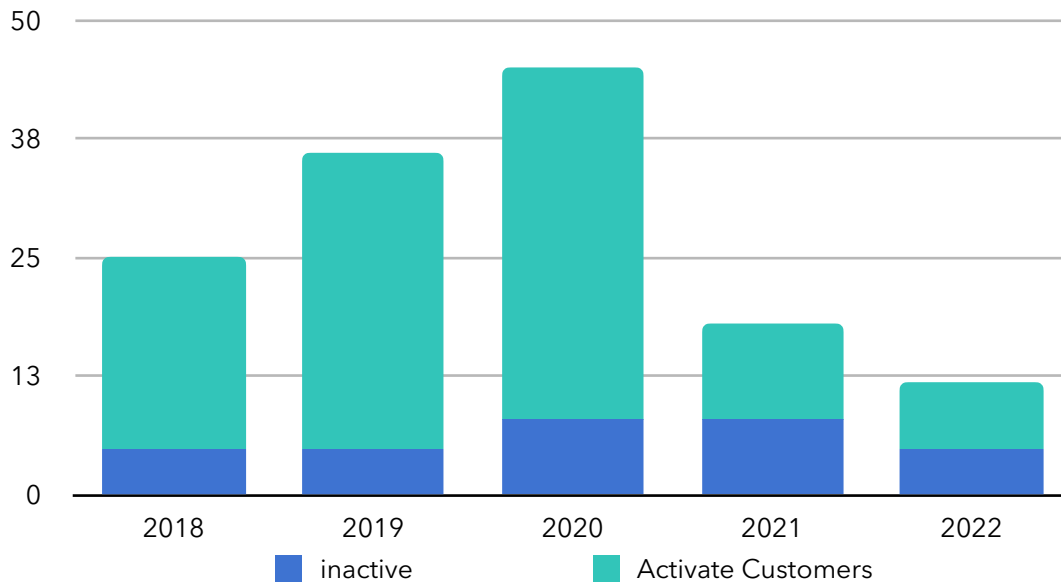
Therefore, the company's most ideal customer acquisition strategy should still be online, with online promotion based on networking traffic and industry sectors, and with a more comprehensive display of the company's capabilities. However, analyzing the company's data, more than 70% of the business comes from referrals, so it shows that the company's effectiveness in this aspect of customer acquisition is not obvious.

4.2.6.2 Activation of new client capacity

The second stage is the activation of new customers, as the potential customers have only a very vague and preliminary impression of the company, and therefore such customers want to know more about the company. The second stage is the activation of new customers. The ability to analyze the activation of new customers is mainly based on the effectiveness of the communication between the company's marketing staff and the customers. When they get in touch with the company for the first time, it means that they have become our potential customers, although they come from different acquisition channels, but they all have a common cognition, that is, the company's portfolio and the company's creators' ability to meet their expectations, and think that now or in the future, they will have a corresponding need to match with it. They generally behave in the following ways: getting in touch with the company by phone or WeChat, requesting information about the company, and leaving a link to the company's portfolio, etc. They usually contact the company by phone or WeChat. They generally match the company's personnel including the sales department, the creator.

According to the incomplete statistics of the WeChat records of the main creators and the sales department (Chart 5), on average, there are about 25 customers per year who come to consult the business by adding WeChat, and in the process, about 80% of the customers can be successfully activated, that is, the customers, through the in-depth communication with the marketing staff, can further confirm the strength of the company and are willing to keep in touch. Therefore it shows that the company's ability to activate customers is good.

Chart 5 — Activity Customers Ratio



Source: The author, 2023

4.2.6.3 Customer relationship maintenance capability

Customer Relationship Maintenance means that the activated customer has established contact, but at this stage the customer has generally not emerged with a clear business need, so from the customer's perspective the company already exists on the customer's supplier list, and is a company that is within their consideration when looking for a supplier. At this stage the company must continue to communicate and interact with the customer in order to achieve the company's goal of higher priority in the customer's supplier selection. Therefore analyzing this stage of customer relationship maintenance can be analyzed with reference to customer activation in the Internet industry.

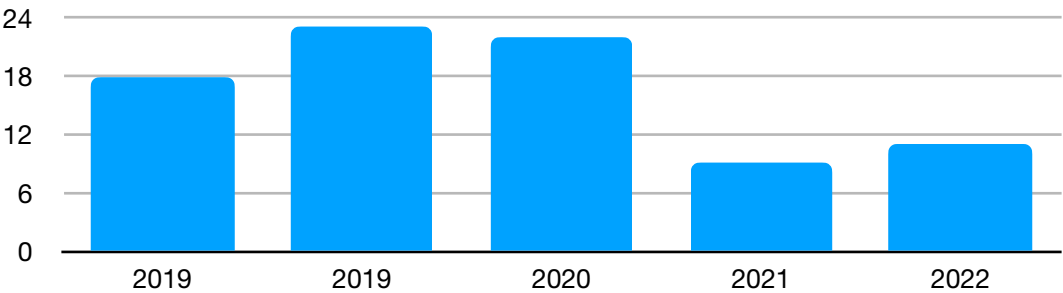
Customer Activity is the size of the ratio of the frequency of communication to the total number of customers in a certain period of time, to describe the degree of customer attention to the company's various business related and updates. Specific calculation formula:

Customer Activity = Frequency of customer communication during the cycle / Total number of customers

If the customer is more active, it means that the customer is more interested in the company, and when the customer has a need, the chances of conversion are higher.

In China, the CG industry companies and customers to maintain communication with the communication tool is mainly WeChat, we will be the above customer communication WeChat records for desensitization and data collation, taking into account the CG industry's longer order cycle and customer life cycle, so we will be a month as a cycle, effective communication of a day record as a frequency, calculated the company's five-year customer activity, the table 6.

Chart 6 — Annual Activity customers of DD company



Source: The author, 2023

The table above shows that the company has a significant drop in customer activity from 2020 to 2021, echoing the huge drop in the company's performance table (Table 2) from 2020 to 2021 in the previous section, thus indicating that customer relationship maintenance has a significant positive relationship on the company's earnings. In addition, we can see from the table that the average annual customer activity is only 17, that is to say, on average, per customer per year, the company has only 17 days of contact with them, which shows that the overall customer maintenance ability is still in a very weak link, and urgently needs to be improved.

4.2.6.4 Product Quality

The fourth segment of the customer funnel model is a core segment, one that concerns whether a customer can be converted into a transactional behavior that actually generates revenue for the company. In CG's customer cycle, it is the process from the customer's decision to sign up to the delivery of the product and the realization of the company's revenue. At this stage, the customer has basically recognized the company's capabilities, but there are

still three uncertainties that will affect the customer's decision to sign: uncertainty of demand, uncertainty of competitors and uncertainty of price.

A, demand uncertainty, including the customer's production requirements have not been fully determined, so it is impossible to clearly determine the company's ability in all aspects of the customer's needs to fully match. In this case, it is to judge which one of the various CG production categories the company is good and strong, which one is not good and strong, if the good and strong product corresponds to the customer's needs, it will be a good match, and improve the signing rate.

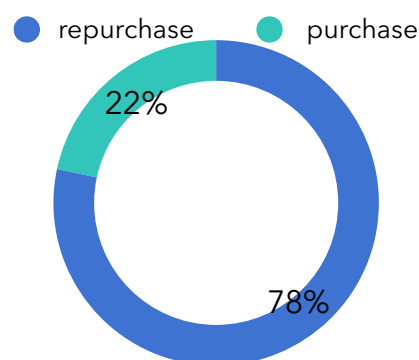
B, competitor uncertainty, that is, the customer swings between a number of suppliers, this is mainly reflected in the bidding process, because in this case each bidding company needs to provide bidding program for customers to choose, customers in the bidding program to score the final decision.

4.2.6.5 Customer Repurchase and Referrals

Whether or not a customer can become a "repeat customer", a long-term customer of the company, or refer new customers to the company, is the last part of the CG customer life cycle, which determines whether or not the customer can continue to bring revenue to the company in the future. The data recorded in the company's project system is based on orders signed for non-first-time purchases or referrals, which defines whether the project originates from new or converted customers.

Based on statistics of repurchase/referral rates for five years of customers, the overall repurchase rate is over 78%. (Chart 7)

Chart 7 — Customer repurchase/referral rate



Source: The author, 2023

4.2.6.6 Marketing Strategy Analysis Summary

From the above analysis the company's products and services are the company's strengths and can be recognized by most of the customers, especially in the automotive field of business and exhibition business, recognized by the high demand for customers, and most of the customers are also re-purchase and referral because of the excellent quality and service.

And the main problem arises from the fact that customer acquisition measures are grossly inadequate and ineffective, resulting in less than optimal results in acquiring potential customers.

Therefore, the main problems are the customers Acquisition and Retention, cause we can not keep developing the Potential Customers. And we don't have any Proactive measures to convert the customers to be a Revenue Customer.

4.2.7 Customer Analysis

After the reliability and validity of the data we analyze the questionnaire at two levels, analyzing the company's strength and weakness from the Questions result and verifying the results of the analysis with the internal analysis we did. From the statistical point of view to analyze the company's customer lifecycle at each stage, for the company's marketing strategy optimization to provide decision support. We collected the survey data and summary every answers' options to a result. (Table 7).

Table 7 — Survey Result

Life Cycle	Objective	Question	Answer Options				
Acquisition	Understanding the Exposure of DD on the internet	How easy is it to find our company on the Internet?	0	0	0	0	36
	To know about DD's website functional	How Often have you seen our company's website?	0	0	0	3	33
	To know about DD's Social Media functional	Have you opened our WeChat or other Official Social media platform?	0	0	0	9	27
	To understanding the client's initial communication experience with DD is.	How Effectiveness when we have first the contact communication	21	6	9	0	0

Life Cycle	Objective	Question	Answer Options				
Active	To understanding the client judgement about the quality of DD's portfolio.	How do you think our quality of work (showreel)	15	21	0	0	0
	Understanding the judgement of the customer about the price	How do you think our price reasonableness	15	12	6	3	0
Retention	Understand the motivation of customers to follow us	When you contact us again just because of...	27	6	3	0	0
	Understanding the frequency of the customer follows us	Paying attention on our website or WeChat Official Account frequency is...	0	0	0	12	24
Revenue	Understand the motivation of customers to sign contract with us	When you decided to sign the contract with us is because of ...	15	12	9	0	0
Referral	Understand the frequency of customers to recommend us	How many times did you referral to the others?	15	15	6	0	0
	Understand the motivation of customers to recommend us	How do you think about us after our cooperation when you recommend to the others?	30	6	0	0	0

Source: The Author, 2023

4.2.7.1 Questions analysis

A. First of all, from the surface data, question 1 all the choose is Very low, which directly reflects that the company's marketing measures are not effective, and all the customers who have participated in the survey so far have not gained from the marketing activities, which is consistent with the results of the previous analysis.

B. The Question 6 distribution of answers is relatively average., all customers think that the company's prices are moderate, which is consistent with the results of the previous analysis.

C. The Question 10 & 11 answers are close to the high option, which directly indicates that there are no negative influences on customers' decision to choose to cooperate with the company, and there are no problems with the company's products and professions, which is consistent with the results of the previous analysis. Therefore, we can basically exclude the company's product problems and price problems, and the emergence of problems basically focus on marketing strategy.

Here are the Questions Analysis explanations for each questions and customers life cycle stages:

- Acquisition:

- ① Customers are mostly don't think our information channels are not working.
- ② The WeChat and other internet Social Platform are not well known.
- ③ The company website are not so useful.

It reflects the online information facility's doesn't working, at least the function is not on the right expectation. So the customers acquisition would have problem for the Customers Growth.

- Active:

- ④ The first contact are mostly effective.
- ⑤ Our works are quite good.
- ⑥ Our price is quite reasonable, not too expensive not cheap.

It reflects the activated stage is working, the customers are happy with our quality and price, and the first contact will leave the good image to them. It won't be the customers growth problem.

- Retention:

- ⑦ The customers are paying attention to us when they having a project.
- ⑧ The customers didn't paying attention to us when they don't have a project.

It reflects the client didn't follow us when they don't need us, it could be the losing customers part of the funnel. Once they have need would be have the risk that they didn't mention DD's service. That is a Loopholes.

- Revenue:

- ⑨ Our service and products are quite valuable.

Even it is the only question about the revenue part, but still have good feedback because of the good quality productions provides the high value to the customers. So it could be the advantage of the Customers Growth.

- Referral:

- ⑩ They are love to referral us to the others.
- ⑪ After the project mostly they are happy with our service quality.

It reflects DD's referral rate is good by the good reputation. It should be keeping advance for the Customers Growth.

4.2.7.2 Statistical analysis

The severity score of the problem is calculated by weighted by the option data of all questions. The algorithm is: There are five options for the answer to each question. The closer the option is to Very Low, the greater the severity of the problem, so the option weight of Very High (VH) is 0, High (H) is 1, General (G) is 2, Low (L) is 3, and Very low (VL) is 4. We weighted and sum the votes of each option of each answer. The calculation formula is as follows:

$$\text{Problem Score} = \text{VH} \times 0 + \text{H} \times 1 + \text{G} \times 2 + \text{L} \times 3 + \text{VL} \times 4$$

We calculated a severity score for each problem. the score is higher, it means the Result of marketing work at this stage will be worse. (Table 8)

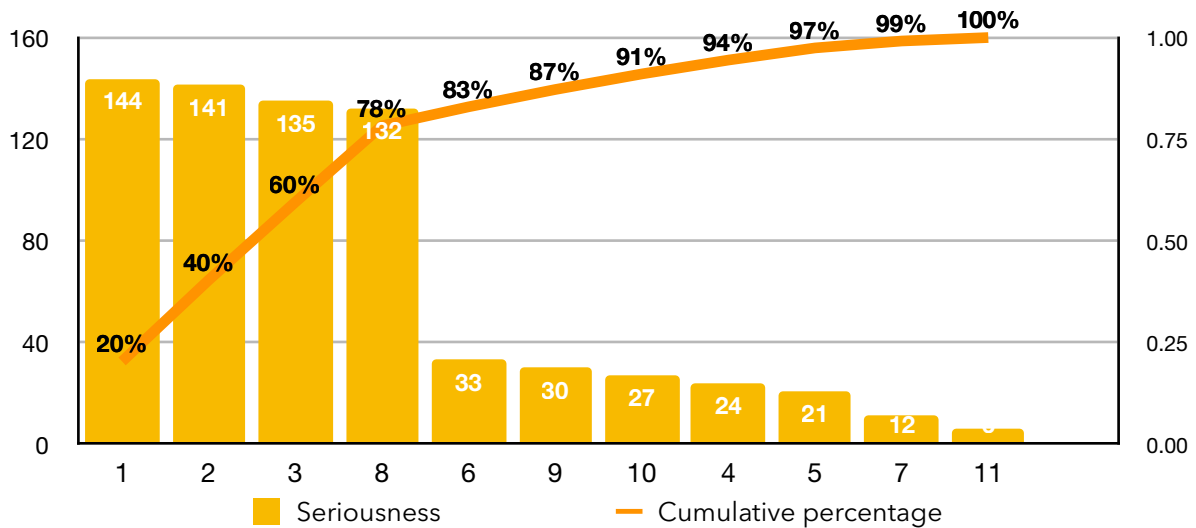
Table 8 — Severity of Problem Score

	Question	Problem Score
<i>Acquisition</i>	1.How easy is it to find our company on the Internet?	144
	2.How Often have you seen our company's website?	141
	3.Have you opened our WeChat or other Official Social media platform?	135
<i>Active</i>	4.How Effectiveness when we have first the contact communication	24
	5.How do you think our quality of work (showreel)	21
	6.How do you think our price reasonableness	6
<i>Retention</i>	7.When you contact us again just because of...	12
	8.Paying attention on our website or WeChat Official Account frequency is...	132
<i>Revenue</i>	9.When you decided to sign the contract with us is because of ...	9
<i>Referral</i>	10.How many times did you referral to the others?	27
	11.How do you think about us after our cooperation when you recommend to the others?	6

Source: The author, 2023

Now with these scores, we need to use a quality analysis tools to analyze the core problems. The Pareto charts can be used to analyze quality problems and identify the main factors that create them. We used a Pareto chart to analyze the above data (Chart 8), sorted by rank for the purpose of guiding how to take Corrective Action : The operations team should first take steps to correct the problems that cause the greatest number of defects. Conceptually, the Pareto chart is similar to the Pareto's Law which recognizes that a relatively small number of causes tend to cause the vast majority of problems or defects.

Chart 8 — Marketing Strategy Problem Analysis Pareto Chart



Source: The author, 2023

4.2.7.3 Conclusion of customer analysis

Pareto's Law Often referred to as the twenty-eight principle , which states that eighty percent of problems are the result of twenty percent of causes. The Pareto chart in project management is mainly used to find out the key reasons for most of the problems, and used to solve most of the problems. From the Chart 8 can be found:

- The Question 1 & 2 & 3 & 8 problems severity of the score occupies close to 80%.
- The Questions 1 & 2 & 3 are belong to the first stage customer lifecycle, Acquisition stage.
- The Question 8 is belong to the second customer lifecycle, Retention stage.

Therefore, The biggest Customer problem is the Customer Acquisition and Customer Retention. It cause the new customers reducing and the activated customers losing. It is consistent with the conclusions of the Marketing Strategy Analysis in Chapter 4.

4.2.8 Internal analysis Summary

From the analysis of the company's data, it can be concluded that the status of each of the company's businesses matches well with the current state of the market. TVC's business is shrinking while the exhibition business is expanding, which coincides with the current state of the CG market in China after the outbreak of the epidemic, and the company therefore needs to use its limited resources on the promising exhibition gallery business in order to improve the company's profitability.

As a CG production company, DD has excellent product quality, high overall customer satisfaction, and good satisfaction and repurchase rate for customers in the high price range that can provide customers with income. With the advantages of the creative team and the production team on automotive CG production and the deep understanding of automotive customers, DD is especially prominent in the automotive field of CG production.

Therefore, combining the market demand for exhibition business with the company's automobile production advantages, it can be concluded that the company's development direction is the automobile exhibition business, including but not limited to automobile exhibitions, automobile touring display, automobile network publicity and other forms of CG production business.

4.3 SWOT analysis of the company

We use SWOT analysis to compare and analyze the internal conditions of the company, to analyze the strengths and weakness. And from the external environment analysis can be clear the external situation facing the company, explore the external situation of the company's favorable factors and threat, so that the operators of the company to take advantage of the company's strengths and weakness, seize the opportunity to avoid the risk of decision-making to provide a strong basis. (Table 9)

4.3.1 Strengths

A. Technical advantages, according the internal analysis, the higher level customers, the better reputation from the customers, because of the DD's high quality performance and service. It is driven by the technical advantages .

B. Geographical advantages, the company is located in a unique city, Shanghai, the central of the Chinese market, where have preferential policies and rich resources.

4.3.2 Weakness

A. Scale disadvantage, The small size of the team leads the company can not balance the products quality and marketing sales.

B. Marketing disadvantage, bad acquisition client and bad retention of the client, leads the clients losing and revenue dropping.

4.3.3 Opportunities

A. The Chinese government going to focus on the development of culture and tourism industry, that will be the big chance of the whole CG industry.

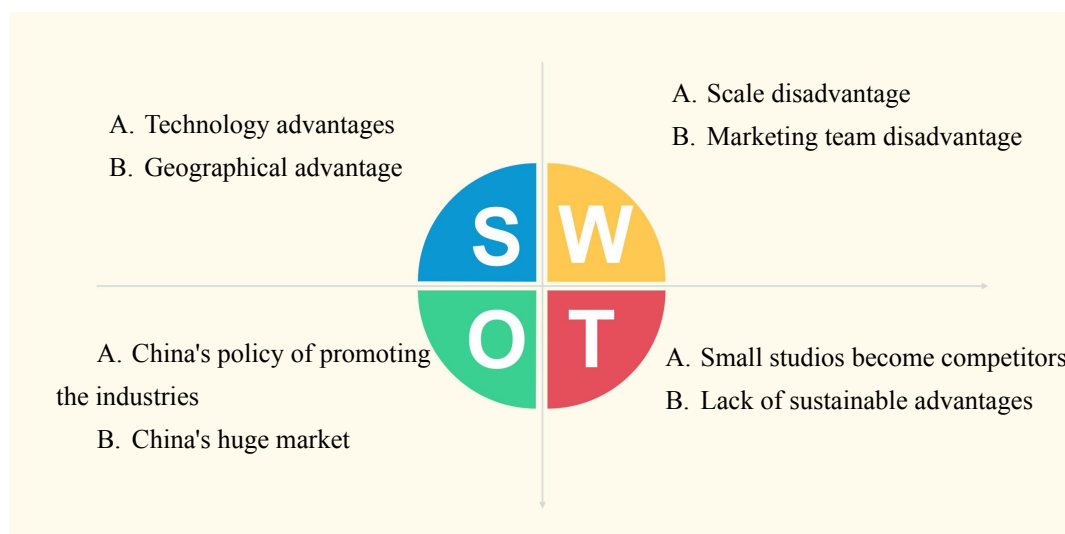
B. The big Chinese market is a big market that have 1.4 billion population, so there are lots of opportunities for the company.

4.3.4 Threat

A. Competitors are growing up fast, because of the social platforms are raising up.

B. The technical advantage is not a sustainable advantage.

Table 9 — SWOT analysis of DD company



Source: The Author, 2023

5. Improvement measures

5.1 Marketing Strategy

5.1.1 Sales Target

According to Chapter 4.2.1 of this thesis, the company's operating conditions, the company's revenue fell by 65% from 2020 to 2022. The purpose of this thesis is to save the company's performance decline, so the sales target will be RMB7,000,000 before the decline in sales in 2020.

5.1.2 Sales Strategy Optimization Scheme

The focus of our marketing strategy optimization is on customer acquisition and customer retention, and realize the self-circulation of customer growth by increasing the Referral rate of customers, so we formulate an action plan for these three aspects.

5.1.3 Measures to Increase Customer Acquisition Channels

According to McClure's AARRR model, customer acquisition needs to be accomplished as much as possible in large quantities, at low cost and with high efficiency. Therefore, from the CG company industry marketing means combination, should be mainly online, offline supplemented by customer acquisition more efficient and low-cost, and with the characteristics of the network is easier to realize the possibility of mass dissemination.

5.1.3.1 Online Customer Acquisition Program

As a CG production company, the biggest selling point and attraction is visualization and creativity. Because creativity exists in everyone's mind, and vision is the means of presenting creativity, Drama's original staff and founder have both skills, which is the best way to present the company's flash point of the combination of skills. And like in the Chinese media market, social media platforms have become the main media channels, for which we has designated a set of online customer acquisition program (Table 10).

Table 10 — DD company's Online Customer Acquisition Program

flat-roofed building	goal	step
new movie theater	Precision marketing customer resources in the same industry	Updated Screening Portfolio
Company website	Create an infusion of each of the above channels	Improve the website by posting the URL on all portfolios, as well as on promotional materials
Bilibili	Using short videos to get wide-area traffic	Create a company channel and produce great short videos

Source: The author, 2023

In this combined solution, the functions of the three platforms come to be differentiated:

A. The XinPianChang belongs to passive marketing, customers need to search accurately in order to have the opportunity to see the company's resources, it is equivalent to a fixed showroom on the platform in accordance with the standard way to store and display the company's work, so as long as the work is organized in place, the role of the XinPianChang can play its value.

B. A company website is an official business card of a company on the Internet, so both the design and the access logic should be very much in line with the company's style and demands, in order to achieve the purpose that customers are attracted to the first time they visit.

C. WeChat is an app that monopolizes China's social software, and it extends a service product called Official Account, which is a "miniature official website" with WeChat as the entrance, and it can still carry the functions of displaying works, updating dynamic news, and even customer interactions, etc. It is an ideal tool for customer acquisition. It is an ideal tool for customer acquisition, and by virtue of the WeChat circle of friends, it has a strong dissemination, which can expand the company's customer acquisition scope.

D. Bilibili video website is one of the most influential and quality sharing video websites in China. In terms of content composition, Bilibili videos mainly consist of Professional User Generated Video (PUGV), i.e., original videos by UP owners. According to Bilibili's Q3 2019 financial report, PUGV content accounted for 90% of Bilibili's overall playback volume. The average monthly active UP owners of Bilibili reached 1.1 million in the third quarter, and the average monthly contribution amounted to 3.1 million

(Sina Finance, 2022). Therefore, it is most suitable for the company, as a content output company, to showcase its production ability and creative talent on this platform. The following is we's plan for the production and output of BiliBili content (Table 11):

Table 11 — BiliBili video platform content production plan

Time	Goal	Stage
Q1	Establishment of initial corporate image positioning	Build IP and topics through CG
Q2	Focus on expanding dissemination	Continuously output Original Content that combines topicality with quality visual creativity
Q3	Consolidation of brand image	Online fan interaction and continuous output of interesting content
Q4	Harvesting Users & Preparing for Next Conversions	Organize meet and greet events, get contact information and drive traffic to the XinPianChang and website

Source: The author, 2023

5.1.3.2 A BiliBili Original Content test project

A. How we prepare the Test Project. In order to verify the feasibility of Original Content promotion, we carried out a test project. First of all, we chose the car as our content theme, and the title was the new car pick-up diary. This brand is very popular in China. We gave a brief introduction to this new car and gave an in-depth explanation of some special functions in the design. In order to deeply bind the company's image to the promotion content, we asked the company's founder to host the program and added some humorous elements that render the atmosphere. (Figure 3)

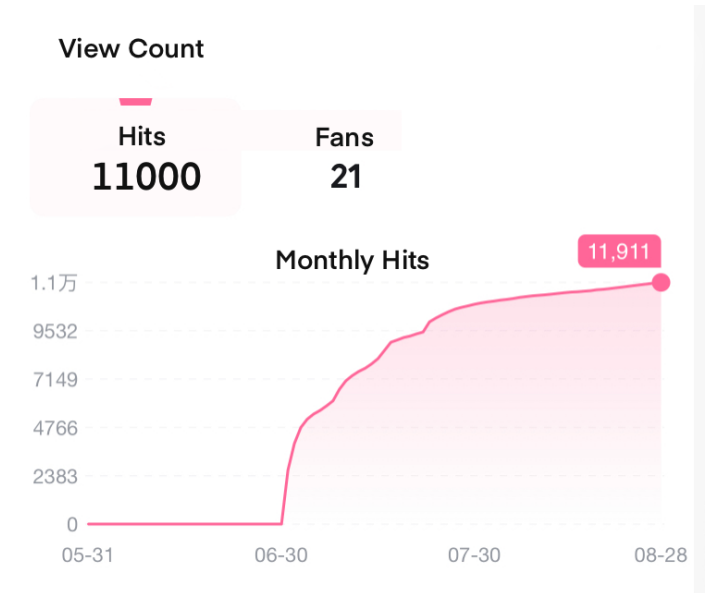
Figure 3 — The DD company Original Content Cover



Source: BiliBili, 2023

B. How does the Test Project work. Based on the data from BiliBili released, the platform analyzed the video's View Count, Likes rate, and comparative analysis of creators in the same video work, resulting in the (chart 8), It can be seen that the BiliBili's creation video within 2 months of the dissemination Hits rate is more than 11,000 times, and the Fans is increase to 21 person (Figure 4). Compare with one of the our Exhibition competitor company Xenario Ltd.'s BiliBili video work, the (Figure 5) shows the main video of the company , Hits is 78, the total fans is 65, the showing dissemination is almost 2 years. It can see our test project is better than our competitor (table 12). We have achieved the initial expectation and means we are going on the correct direction.

Figure 4 — DD Original Content data



Source: BiliBili, 2023

Figure 5 — The Xenrio Ltd. Original Content



Source: BiliBili, 2023

Table 12 — DD & Competitor Original Content Hits Rate competition

	Hits	Fans	Dissemination (month)	Average Hits Rate(Monthly)	Average Fans Rate(Monthly)
DD	11000	21	2	5500	10.5
Xenario	78	65	24	3.25	2.7

Source: The Author, 2023

5.1.3.3 Offline customer acquisition programs

The offline program mainly consists of attending industry exhibitions, visiting customers, and art exhibitions. For Drama's company attributes, it has certain attributes of digital art, so art exhibition is a good way to reveal and display offline. Taking the rapidly popular city naked eye 3D screens in the past few years as an example, the stunning visual effects exhibited on the naked eye 3D screens in Seoul, South Korea, Wuhan, China and several other cities, through the spreading of video social platforms, have allowed these naked eye 3D CG production companies to grow dramatically, with an unprecedented effect. Drawing on this case, DD companies can join hands with screen equipment manufacturers for joint exhibitions, by virtue of the visual effects of the shocking power of the significant spread, to achieve a win-win situation.

DD has made attempts in joint marketing with hardware, such as joining hands with a famous LED listed company in China to jointly build a digital art showroom in 2021, in the process DD has gained about 5 groups of new potential customers and all of them have been retained, and in this way, due to the two sides have realized the exchange and sharing of resources, the cost of customer acquisition is much lower than that of the self-invested In this way, the cost of customer acquisition is much lower than self-invested offline marketing campaigns because both parties exchange and share resources. Therefore, this type of collaborative digital art project should be a key direction for offline promotion in the future.

5.1.2 Measures to activate new customers

The WeChat Channel is a video platform based on a network of personal contacts derived from his entrance to the WeChat app, that is, the people who have already made contact. Activating them requires giving them a moment of surprise.

The WeChat Channel has a advantage is the system can actively push the video content to the people whom know you, so that they can get your updates efficiency, it is very ideal as a customer retention tool. Acquired potential customers on WeChat, will have a preliminary understanding of the company, if you can let customers see some of their very interested in the content, you can increase the customer's interest in the company and attention to the customer's conversion will be very helpful.

5.1.3 Customer relationship maintenance optimization measures

The customer retention problem of DD company also belongs to the key optimization problem, which is mainly reflected in how to maintain a certain degree of stickiness after the activation of the customer, and how to let the customer keep the attention of DD company. CG orders are high unit price and low frequency, so it can't be accomplished overnight, and there may not be an immediate demand for orders when the customer pays attention to the DD company, so it is very critical to retain new customers and measures to give priority to the customer to choose the DD company when the demand arises. The company has become very critical. In this regard, we has developed four measures: customer classification, demand mining, continuous marketing, targeted return visits.

5.1.3.1 Classification of customers

The clients we acquired and activated were all basically interested in DD's business, but they all came from different types of companies, such as advertising agencies, film and TV commercial production companies (production companies for short), environmental design firms, exhibition hall owners, and so on, as mentioned in Chapter Two. We need to categorize them in order to precisely market to their needs, business attributes, and project scale. For the above categories of customers, we has developed a relationship maintenance program:

A. The advertising agency has a large business volume, but the team size is also large, the docking customer position is relatively large, usually for the production and creative

director, the creative director is usually the first decision maker, the advertising agency is usually interested in the CG company's professionalism and art level, the price sensitivity is low. Therefore, when targeting advertising agencies, we should take the promotion of technology and art as the leading role, and try our best to present the advantages of DD companies in terms of artistic attainments and technical core.

B. A production company, with a business model based on general contracting for film and television production and subcontracting to various types of producers. They usually take advertising agencies and brands as their clients, so they are more sensitive to the execution ability and price of CG companies, and their business types are relatively diversified. Therefore, production companies should take customer service and price as the leading promotions, and try to present the company's diversified and cost-effective advantages.

C. Environmental design companies, environmental, decorative design and construction companies, they are usually property owners as customers, they are usually the general contractor of the project, through the design and then subcontract the construction of the digital art decoration part to the CG company, in communication and customer service is more sensitive. For this kind of clients, the quality of service and communication should be emphasized, and sufficient cooperation should be provided in the pre-project design process.

D. Exhibition hall owners, this kind covers the museum side and the exhibition hall needs of the enterprise side, they are self-investment and the main body of the exhibition hall, in the design, technology, art, professional and other aspects of the supplier have this strong dependence, so the communication demand is the largest, the project is difficult, the price scale is large. Therefore, for this kind of customers, we should take service and communication as the purpose, and use the largest possible degree of cooperation and execution to gain customers' trust.

5.1.3.2 Demand Mining

The clients of CG companies usually come from non-CG specialized fields, so there is a gap of knowledge between CG companies and their clients. Therefore, sometimes clients' demands may be unreasonable, or they may have some hidden needs that will lead to better

results. In the case of unreasonable demands, DD companies need to have strong communication skills to point out the unreasonable demands of clients and make professional and reasonable suggestions. For hidden requirements, CG companies need to have a keen insight and make appropriate guidance to facilitate the establishment of the requirements, so as to obtain the trust and recognition of the customer.

5.1.3.3 Continuous Marketing

The process of generating demand from our customers are long, so in this process we develops a program of continuous marketing to keep our customers connected and attentive:

A. Regularly update the latest company news, including but not limited to excellent project video updates, project introduction tweets updates, customer interaction activities (such as raffles, parties, sharing, etc.).

B. Regularly push out the above messages to customers, and the average interval between pushes should not be higher than one month per group of customers.

5.2.3.4 Customers visits

This initiative is aimed at clients who are not the first decision makers in their positions, such as producers in advertising agencies and liaisons with landlords. In their companies, they are responsible for sourcing suppliers to provide their decision makers with adequate and sound advice. Therefore, for this type of position, we need to have a program of regular visits, regular calls, or visits, and pay attention to all business developments about the client company, in order to achieve a timely response, as well as cooperation, with the aim of making purchasing decisions enough to put DD at the forefront of the client's waiting list.

We have formulated a Customer Visit Rule. We classify the customers according to order value and divide them into VIP and Normal customers. Customers with an order value of more than 500,000RMB are VIP customers, and customers with an order value of less than 500,000RMB are Normal customers.

We will setup a customer visit KPI for the marketing team, let them regularly visits our customers who are not in the project cycle, and ask them to keep the record of each return visit as company data. We made a table (table 13) for the specific return visit system.

Table 13 — Customers Visit Rule

Classify	Classify standard	Visit cycle	KPI	Evaluation cycle.	The record of the visit
VIP Customers	More than 500,000RMB	Every month	30 customers per season	Every season	Date of visit Recent status of visits to customers Method of return visit mention and related activities Promote our information and works
Normal Customers	Less than 500,000RMB	Every two weeks	45 customers per season	Every season	

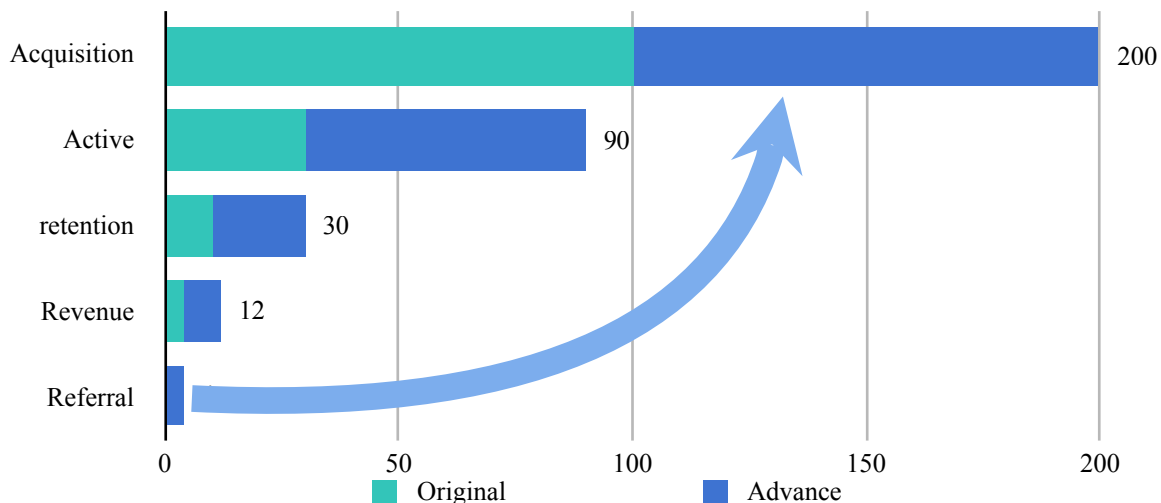
source: The author, 2023

5.2.4 Measures to increase customer referrals and repurchase rates

Completing a CG order is a systematic project, and in this funnel model of AARRR, the conversion rate of the customers in each environment is very low, so the customers who can bring revenue to the company in the end, are very precious. In the last part of this low conversion rate funnel, we thought of the principle of leverage, applied to this funnel model.

In researching AARRR this model we are pushing forward, so the number of customers is highest when they are acquired and lowest when they generate revenue and referrals. But if you reverse the funnel model, it's an amplifying lever: if you can increase the number of customers who ultimately convert (or repurchase), it means that the number of customers acquired increases exponentially, i.e., when a small number of orders are successfully converted, the acquisition process is equivalent to doubling the number of customers into the funnel without additional investment, saving a lot of resources and time that would have been invested in incremental customer acquisition. time. The diagram of the funnel is this(Chart 9).

Chart 9 — Client Growth/Input Funnel schematic (Person)



Source: The author, 2023

5.2.5.1 Increasing referrals

How to get customers to form a self-propagation, K factor, a concept from epidemiology, describing the degree of self-propagation of the degree of strength, in recent years more than a decade has been widely in the field of marketing research and application, known as "viral". According to the formula for calculating the K-factor of self-propagation:

$$K = \text{number of referrals per client} \times \text{conversion rate}$$

Since it is not possible to record the number of referrals from the clients of DD, and based on the feedback from the client's visit (Chapter 6) it is assumed that the minimum number of referrals from clients who have made referrals is two and have successfully realized revenue conversions, and then substituting into the formula gives the K-factor of 1.56, which is greater than one, the number of users will self-propagate and increase. That is to say, as long as at the end of the program, so that the customer to achieve two customers referrals and successful realization of revenue, will be able to achieve the goal of self-growth of customers.

Serving a small number of customers is therefore far more efficient than doubling the growth of customer acquisition.

Due to the long cycle of CG orders, customers frequently contact with DD's team during the process, and will have a strong impression of the company at the end of the project. If the project service process is smooth, it is very easy to promote customer referrals. We draws up a program to increase customer referral rate as follows:

A. Engage for reviews: If customers fill out a DD review form at the end of the program, they will receive a Life Membership discount card, such as a car wash coupon, shopping coupon, etc., and the number of vouchers can be increased or decreased at their discretion based on the quality of the review or suggestion.

B. Recommended with a prize: In the review of satisfied customers, we increase the recommended preferential policy, the customer if successfully recommended new customers, in the company to get in touch with, this customer in the next order can get 0.5% discount. If the new customer recommended by the customer succeeds in signing the order, then the customer can get 10% discount in the next order, and the new customer can also get 10% discount. If the customer refers more than three or more new customers and

they successfully sign up, the customer will receive a 15% discount on all future repeat orders.

C. CG Summer Carnival: CG industry is not a FMCG industry, promotions are considered inappropriate by most CG practitioners, because CG can not realize the scale of production, with thin margins in the form of pulling the occupancy rate. However, we has the following insights into this program:

① The seasonality of the CG industry is very obvious. According to statistics, the peak period of the Chinese market in a year is mainly concentrated in the two months before the two major festivals, i.e., November to January before the Spring Festival, and August and September before the National Day. In addition, due to Alibaba's 11.11 Carnival and Jingdong's 6.18 Carnival, there is also a production peak on the eve of these two festivals, so there is a trough at other times of the year.

② The company has been experiencing the pain point of uneven productivity, i.e., not enough manpower at peak hours to miss out on revenue, and too little manpower at low hours to waste human resources. Since human resources are expensive in the CG industry, the losses caused by uneven productivity are also very obvious.

Therefore, I believe that DD can appropriately implement the CG promotion season, in the trough time to implement price reduction action, to a certain extent, by guiding the customer demand, cutting peaks and filling valleys, not only to alleviate the problem of insufficient manpower during the peak period, but also to solve the problem of excess human resources in the off-season, in this way, at the same time, the topicality of the CG Carnival will become a great form of communication, thus promoting the rate of referrals.

5.2.5.2 Increasing repurchase rates

Most of DD's customers are loyal to a certain extent, from the company's data analysis of customers with a repurchase rate of 78%, so we designated to prevent the loss of customers to prevent the loss of the protection program to prevent the occurrence of the following situations:

A. Project Quality Assurance Program: Each project must be led by a director and a producer, and each project leader cannot lead more than 2 projects at the same time. The director and producer must supervise each other and make decisions together.

B. Project Cycle Guarantee Program: The project schedule must be completed and confirmed by the client before the start of the project. When encountering uncontrollable factors, refer to the principle of project management triangle in the previous section to make reasonable adjustments to the production cycle and schedule.

C. Budget guarantee program: In order to ensure that the company's projects do not exceed the budget, there is a need to do two safeguards: the project should be confirmed in depth with the client before the production of all the needs, and implemented into the contract. When the customer requirements change resulting in an increase in project costs, the producer and director should be timely to discuss whether there are flexible changes in the production program without the cost of contingency plans, if there is no feasible program will need to actively communicate with the customer to reach a consensus on the program.

Through the above three programs comprehensively centered on the law of the project management triangle, in the dynamic production process and changing objective factors, to find the dynamic balance between the interests of the DD company and the client.

5.2 Schedule of Activities

In this sales optimization plan, the planning time is 2 years. Data collection and analysis of the implementation effect of the plan are carried out every quarter. If the effect is not ideal in a certain link, a sales department meeting will be held to improve the implementation weakness. The following is the schedule of program implementation (Table 14):

Table 14 — Marketing strategy optimization plan schedule

Activities	Objective	2023								2024							
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
XinPianChang	Increase on line acquisition																
Website																	
WeChat																	
BiliBili																	
Digital Art Show A	Increase off line acquisition																
Digital Art Show B																	
Customer visit	Maintain retention																
CustomersInc entive plan	Increase referral																

Source: The author, 2023

5.2.1 Online marketing

Online marketing needs to optimize the content of three network platforms, including the new set, the company's website and BiliBli website, the new set, and the WeChat official account is a one-time content arrangement on the company's website, so the time required is about one month. The creative videos on the BiliBli platform need to be planned and produced, so it takes a long time to accumulate and prepare a year to accumulate channel content. Therefore, online marketing can be completed in about a year.

5.2.2 Offline Marketing

Offline marketing plans to prepare two offline display projects, which are distributed in the autumn of 2023 and the autumn of 2024 respectively. The reason for holding offline display activities in these two seasons is that it is a public holiday with tutorials on the National Day in China. Therefore, there is a saying in the Chinese sales industry called Jinjiu. Silver October, that is to say, September and October is the most prosperous season for economic development transactions.

5.2.3 Customer Maintenance

Customer replies mainly include customer visit activities and frequent contact with customers. These work should be carried out from time to time. Therefore, customer information will be sorted out and exchanged at the end of each quarter to communicate with the company's management to make further adjustments to customer decisions.

5.2.4 Incentive plan

The incentive plan is to set customer incentive policies and encourage customers to refer and pay enough. Therefore, the design and adjustment of the incentive plan should be carried out once a year. The adjustment time of this design will be set at the end of summer to facilitate customers to make a new round of customer referral and repurchase decisions when large-volume orders are placed in autumn.

5.3 Marketing plan budget

The cost of marketing plan optimization includes the following aspects:

- Expand the recruitment of marketers to form a marketing team
- Produce excellent creative videos and have enough DD company's video channels.
- The external publicity materials team produces the company's website and related design materials.
- Holding offline digital art exhibition

The table below (Table 15) for specific statistics.

The total budget of the marketing plan is about ¥428,000, with an average annual of about ¥214,000, accounting for about 15% of the total revenue in 2022. In the case of ensuring that the annual profit is not heavily invested, the company's revenue will be positively improved.

Table 15 — Marketing plan optimization budget table (2 years)

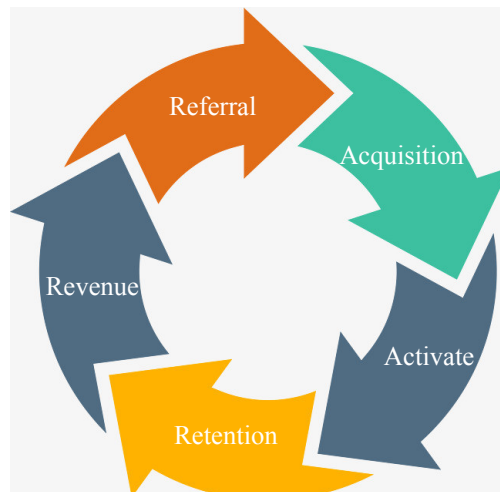
	Unit	Quantity	Unit price	Amount
Set up a marketing team	Person/annual salary	3	¥96000	¥288000
Make creative videos	Piece	20	¥3000	¥60000
Network promotional materials	Project	2	¥10000	¥20000
Digital Art Exhibition	Project	2	¥30000	¥60000
	Total			¥428000

Source: The author, 2023

5.4 Marketing Strategy Summary

Through the above marketing strategies, DD Company comprehensively targets the five links of customer acquisition, activation, retention, revenue and conversion for in-depth optimization: use the maximum scope with the minimum cost to improve the efficiency of customer acquisition, so that the opening of the customer acquisition funnel is as wide as possible. Use excellent company works and excellent works of video social platforms to stimulate the interest of potential customers. Tap into the potential needs of your clients to increase their confidence and sign-up rate. Manage the project with the law of triangular balance, in addition to ensuring excellent output and service quality, more can achieve the best balance between the interests of the company and the client. Finally, use appropriate incentives to promote customer referrals, increase referrals of new customers, and then enter a new customer life cycle, and then form a virtuous cycle of customer life cycle (Figure 6).

Figure 6 — Schematic diagram of the customer lifecycle cycle



Source: The author, 2023

6. Conclusions

6.1 Research Conclusions

The CG industry is a technology-dense industry, with a high dependence on talents and a high demand for technological updates. Therefore, it is easy for managers in the industry to pay too much attention to the issue of talents and technology, thus neglecting the importance of marketing strategy for company development, especially in the systematic research of customer life cycle, the number of searchable studies and reports on the CG industry is very scarce compared to other industries. Although the AARRR model was born in the Internet industry, the characteristics and needs of the five customer lifecycles are very similar to those of customers in the CG industry. Therefore, through this thesis, we hope to draw the attention of operators in the CG industry and related high-tech industries to the customer lifecycles, and to invest relative resources in the marketing strategy, so that the optimization of the five aspects of the strategy will significantly improve the company's business situation. We hopes that this thesis can draw the attention of operators in the CG industry and related high-tech industries to the importance of the customer life cycle.

6.2 Research Limitations

Due DD company is a medium-sized enterprise in the industry, the number of customers is limited in the number of orders. At present, the number of customers that DD company can contact is not wide enough, resulting in a limited number of data samples and a small number of questionnaires. In this case, we will continue to track the development of DD company and closely update and analysis data with the company's operators.

6.3 Suggestions for future research

CG industry is essentially a commercial art service industry, with the development of technology, software updates and iterations, and the industry division of labor is more and more detailed, CG artists have been gradually detached from the boundaries of technology, with a wider and freer means of creation, and the efficiency of the rapid increase year by year, so in China, the size of the CG company is becoming smaller and smaller, and the threshold

of investment is also getting lower and lower, many CG artists are more in the form of individual artists rather than a team to play a huge value in the industry chain. Therefore, in China, the scale of CG companies has become smaller and smaller, and the threshold of input has become lower and lower, and many CG artists are playing a great value in the industry chain in the form of individual artists instead of teams. However, no matter big companies or individual studios, they have been in a passive state in terms of payback problems and pricing rights. The main reason is that the CG industry is at the end of the industry chain of media advertising/entertainment industry, belonging to the bottom supplier, and the profit margins are obviously less and the competition is more intense compared with the agents and publishers in the upstream of the industry chain, and there is a large input of talents in the CG industry with a high technological threshold. As a result, the ceiling effect of company size is more obvious, and more small companies will appear in the industry, leading to more intense competition and further depressing profits, and the CG industry enters into a vicious circle.

In China, only a very small number of CG companies to develop into large-scale companies, and this part of the company, such as the United States of several well-known CG animation companies, have been separated from the original end of the industry in which they are located, to re-find the track, to become another new industry leader, such as China's Crystal Stone, is the first batch of attempts to host the Olympic Games in China to open the model of the company, such as the United States of America's Pixar and Sony animation have all been the leader in the field of animation film, they have become the head of the industry chain. Pixar and SONY in the United States, animation have also dominated the field of animation movies, they have been separated from the end of the industry, to become the head of the industry chain.

With the continuous development of CG industry technology and the continuous improvement of hardware arithmetic, the application scenario of CG has undergone a radical change, from the traditional application of film and television, entertainment, media, exhibition, etc., to the current Internet of Things products, automobiles, online shopping, live broadcasting, education, military and other more fields, it will become a more important means of visual communication of human beings, so the value of the contribution of CG to the future of society is immeasurable.

The CG industry has a huge space for development. Whether to remain in the vicious circle and seek for survival, or to take a step back and look at the whole picture to seek for a broader blue ocean is a question worth thinking about. Combining DD's own strong technical background with its strong business capabilities in the automotive field and broader CG application scenarios in the future, a blue ocean suitable for DD's development may be discovered.

We believe that, regardless of the field, the customer life cycle problem is still one of the most worth thinking about, in which the key is to make the customer life cycle to form a virtuous cycle. Improving the customer referral rate can greatly improve the efficiency of the customer acquisition funnel model, so that the last link of the AARRR referral to the first link of customer acquisition, forming a closed loop.

Bibliography

- Bill Gates. (1966). Content Is King. MicroSoft
- Bing Xue. (2010). Research on AAA company marketing strategy
- China Industry Research. (2023). Research and Development Prospect Analysis Report of China's CG Market 2023-2029. https://www.cir.cn/R_ITTongXun/73/CGHangYeXianZhuangYuFaZhanQuShi.html
- Dave McClure. (2007). "Startup Metrics for Pirates: AARRR!!!". <https://500hats.com>
- Huaon Industrial Research Institute. (2023). 2023-2028 China CG Industry Market In-depth Analysis and Investment Strategy Consulting Report. <https://www.huaon.com/channel/software/871898.html>
- Huan Liu. (2013). Li An said that the high cost of special effects caused dissatisfaction. His younger brother: He has expressed his gratitude. China News. <https://www.chinanews.com/yl/2013/02-28/4603520.shtml>
- Intelligence research Group. (2016). Analysis and Research Report on the Current Situation of China's CG Market in 2016-2022. China's industry information
- Mo Su. (2023). "2022 China Game Industry Report" released: In 2022, China's game industry will enter the stage of pressure storage, Workers' Daily, <https://baijiahao.baidu.com/s?id=1757970360419959898&wfr=spider&for=pc>
- Na Zhang. (2023). Brief discussion on the importance and technical analysis of special effects production in the later stage of film and television. China Academic Journal Electronic Publishing House.
- Nian Liu. (2023) . Shanghai Auto Show | New changes in China's auto market: joint ventures are busy with "internal volume" and independently seek "expansion", Cover news, <https://baijiahao.baidu.com/s?id=1763711568249659582&wfr=spider&for=pc>
- Qing Deng. (2020, August). Review and Prospect of New Media Marketing Research. Scientific decision-making.
- RoyalFlush Network. (2023). SilkRoad Visual Technology Co.,Ltd. 2022 Annual Board of Directors Business Review. <http://yuanchuang.10jqka.com.cn/20230320/c645672024.shtml>

Sean Ellis, & Morgan Brown. (2017). Hacking Growth: How Today's Fastest Growing Companies Drive Breakout Success. CITIC Press Group.

Shanghai Bureau of Statistics, (2021) Analysis of the development status and operation of major enterprises in Shanghai in 2020, <https://www.chyxx.com/industry/202104/948689.html>

Sohu.com . (2023) .The development overview and six major trends of the computer graphics and image industry at home and abroad. https://www.sohu.com/a/380284717_120099884

The Paper News. (2023) . E-sports will become the official event of the 2026 Asian Games. https://m.thepaper.cn/newsDetail_forward_23782598

The Paper News.(2022), Shanghai's advertising industry's business revenue increased by 30.4% , and the promotion effect of Internet advertising is obvious. <https://baijiahao.baidu.com/s?id=1745280148780477022&wfr=spider&for=pc>

Xiujiang Yu, Liqiang Wang, & Yanyong Sun. (2019). Small and Medium-sized Film and Television Production Enterprise Business Model and Risk Control. Observation And Ponderation

Yu Zhang. (2006, August 2). Crystal Digital Technology becomes a service provider for images of the Beijing Olympic Games. CCTV. <http://news.cctv.com/sports/aoyun/2008beijing/20060802/104710.shtml>

Yue Li、Yijun Liao. (2023) . Promote the high-quality development of the cultural industry. People's Daily. <https://m.gmw.cn/baijia/2022-08/31/35991217.html>

Zhen Cheng, (2016) , 21 big animation companies in Hollywood closed down in 10 years. What happened? JIEMIAN.COM. <https://m.jiemian.com/article/514074.html>

Appendix

Appendix A — Project Data Sheet

Project No.	Client Type	Business Type	Contract amount	(manufacturing, production etc) costs	sales margin	payback period
1	5	1	1	1	3	2
2	5	1	1	1	5	2
3	1	1	1	1	5	2
4	1	1	1	1	5	3
5	4	4	2	3	3	3
6	1	2	3	3	3	2
7	5	5	2	3	2	3
8	1	2	1	2	1	2
9	5	5	1	1	3	2
10	1	5	1	1	5	1
11	5	1	1	1	5	3
12	5	1	1	1	5	3
13	5	5	1	1	2	3
14	5	1	1	1	5	2
15	2	2	3	4	3	2
16	1	1	1	1	4	3
17	2	2	3	3	3	2
18	5	1	1	1	4	3
19	1	1	1	1	5	2
20	5	5	2	3	3	3
21	5	1	1	1	5	2
22	5	1	1	1	5	3
23	5	1	1	1	3	2
24	2	2	4	3	4	2
25	5	1	1	1	5	2
26	1	1	2	1	5	3
27	5	1	1	1	4	5
28	2	2	4	3	4	2
29	1	1	1	1	5	1
30	5	1	1	1	4	2
31	1	1	1	1	5	2
32	5	4	1	1	5	2
33	1	5	1	1	4	2
34	1	1	1	1	5	2
35	2	2	2	1	5	2
36	2	2	1	1	3	2
37	2	2	1	1	4	2
38	1	1	2	2	3	2

Project No.	Client Type	Business Type	Contract amount	(manufacturing, production etc) costs	sales margin	payback period
39	5	1	1	1	4	2
40	2	2	1	1	4	2
41	5	4	2	1	4	4
42	5	4	4	4	3	4
43	2	1	2	3	1	3
44	1	1	1	1	3	3
45	5	4	5	5	3	5
46	3	4	5	5	3	5
47	5	3	1	1	4	3
48	5	4	5	3	5	5
49	5	4	1	1	4	5
50	1	1	2	1	4	2
51	3	4	1	1	4	3
52	2	1	4	3	4	3
53	5	3	3	2	4	3
54	2	1	2	3	3	3
55	3	4	3	4	3	3
56	3	4	2	3	3	3
57	1	1	1	1	3	2
58	1	1	1	1	2	2

Source: DD company, 2023

Appendix B — Exhibition average growth rate

2018 Exhibition	2019 Exhibition	2020 Exhibition	2021 Exhibition	2022 Exhibition
300,000	0	150,000	100,000	400,000
		510,000		280,000
		1,250,000		
		4,000,000		
		1,000,000		
		30,000		
300,000	0	6,940,000	100,000	680000
Annual growth rate	-100%	100%	-99%	580%
Average growth rate	120%			

Source: The Author, 2023

Appendix C — TVC average growth rate

2018 TVC	2019 TVC	2020 TVC	2021 TVC	2022 TVC
60,000	150,004	67,000	175,000	300,000
30,000	15,000	185,000	537,420	60000
25,000	20,000	50,000		60000
3,000	5,000			
167,000	185,000			
81,000	30,000			
5,000	65,000			
6,500	90,000			
30,000	80,000			
35,000	50,000			
85,000	200,000			
80,000				
35,000				
200,000				
842,500	890,004	302,000	712,420	420000
Annual growth rate	6%	-66%	136%	-41%
Average growth rate	9%			

Source: The Author, 2023

Appendix D — Event average growth rate

2018 Event	2019 Event	2020 Event	2021 Event	2022 Event
75,000	400,000	35,000	0	410,000
200,000	400,000	30,000		
300,000	620,000			
310,000	250,000			
100,000	80,000			
430,000	80,000			
420,000				
1,835,000	1,830,000	65,000	0	410,000
Annual growth rate	-0.3%	-96%	-100%	100.0%
Average growth rate	-24%			

Source: The Author, 2023

Appendix E — Survey Questions Analysis

Customers Life Cycle	Analysis	Question	Answer				
			Very high	high	General	low	Very low
<i>Acquisition</i>	Customers are mostly don't think our information channels are not working	1. Access to information Convenient	0	0	0	0	36
	The WeChat and other internet Social Platform are not well known	2. Network visibility	0	0	0	3	33
	The company website are not so usefull	3. Web hits	0	0	0	9	27
<i>Active</i>	The first contact are mostly not so effective	4. Effectiveness of first contact communication	9	6	9	0	0
	Our works are quite good	5. Quality of work	15	21	0	0	0
	Our price is quite reasonable, not too expensive not cheap	6. Price reasonableness	15	12	6	3	0
<i>Retention</i>	The customers are paying attention to us when they having a project	7. The need to focus on the company	27	6	3	0	0
	The customers didn't paying attention to our company when they don't have a project	8. Focus on corporate frequency	0	0	0	12	24
<i>Revenue</i>	Our service and products are quite valuable	9. Reasonableness of the decision to sign	15	12	9	0	0
<i>Referral</i>	They are love to referral us to the others	10. Frequency of referrals	15	15	6	0	0
	After the project mostly they are happy with our service quality	11. Post-purchase evaluation	30	6	0	0	0

Source: The Author, 2023

