

Multi -Attribute Attitude Model Analysis

---Making comparative analysis with iQiyi & Tencent video

Introduction

With the evolvement of web 2.0, Internet content becomes more diverse and complex than before, most of which are presented in words, pictures, videos and even virtual reality. Online video industry has entered a high growth path, about 60.9 billion increase of Chinese market share in 2016, meanwhile it has met great changes from video content to user structure.

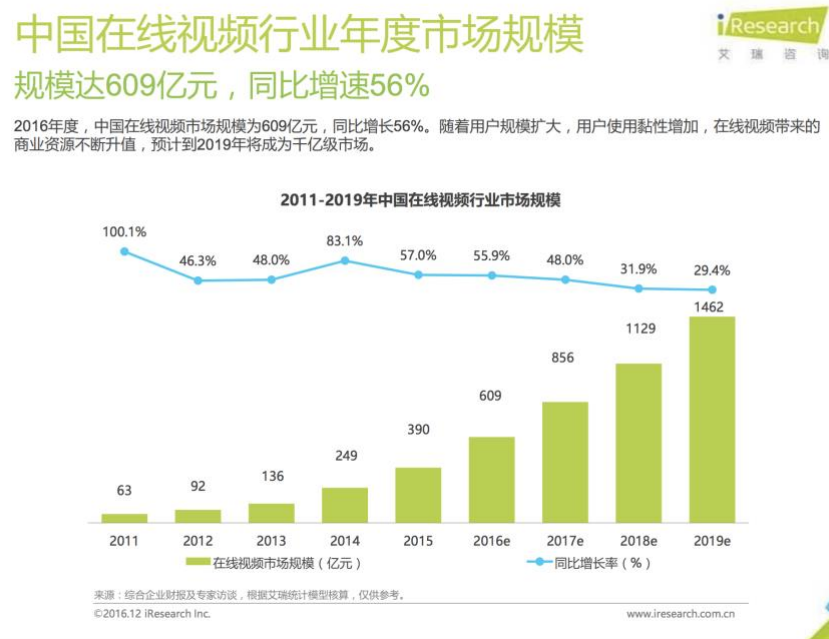


Table (1) The market size of online video product in 2016 Source: iResearch

More succinctly, user-generated content(UGC) gradually becomes the main concern for video production. The online video companies make great efforts to self-made TV drama and variety

shows, which become the selling point to attract the huge amount of audience. At the same time, the scale of premium paid members is expanding, contributing to the second biggest domain of money maker. Compared with the monopoly of Youku&Tudou several years ago, iQiyi and Tencent video are showing a rapid tendency of growth, being the first and second downloading applications in app store of mainland China even though they are newcomers in this area. In addition, watching online video has been habitual for people especially the youth. Thanks to the advance of communication technologies, more and more people have adopted the PC and mobile phones. In addition, I, as a targeted audience, am interested into online video development and want to learn more about the characteristics of users and hear their voice on the requirement of online video products. Based on the above situations and reasons, I prefer to choose to study the domain of the online video industry and make comparison with iQiyi and Tencent video.

在线视频企业梯队图



爱奇艺、腾讯视频、优酷、乐视视频为第一梯队

根据艾瑞mUserTracker监测数据，将在线视频类App划分为三个梯队，其中爱奇艺、腾讯视频、优酷、乐视视频月独立使用设备数平均超过一亿，为第一梯队；芒果TV、搜狐视频、暴风影音月独立使用设备数平均超过5000万，为第二梯队。第一、第二梯队中仅有暴风影音作为聚合类视频App上榜，版权类在线视频依然较受大众用户欢迎。艾瑞分析认为，随着用户版权、付费意识逐渐成熟，版权类在线视频在提供优质播放品质，提升用户体验方面有突出优势，发展前景良好。

2016年在线视频类App平均月度使用设备数梯队示意图



Table (2) Echelon diagram of online video product Source: iResearch

Here is the brief introduction of iQiyi and Tencent video.



iQiyi,^[1] with the brand slogan “Always Fun, Always Fine”, launched in 2010, which was invested by Baidu, promoting with a smooth viewing experience, dazzling HD visual effects and abundant high-quality video resources. Their brand image impresses audience with “quality, youth and fashion”, conveying their pursuit to the video quality and welfare of

[1] “爱奇艺公司介绍”，爱奇艺.<http://www.iqiyi.com/common/aboutus.html>

membership. By the end of 2016, iQiyi has become the No.1 in the online video industry, accounting for 51% market share.^[2]

时间区间: 2017年8月

排名	对比	应用	已通过全流量验证	类别	月度独立设备(万台)	环比增幅(%)	详情
1	<input type="checkbox"/>	 爱奇艺	<input checked="" type="checkbox"/>	在线视频	60959 ↑	+ 0.6	详情
2	<input type="checkbox"/>	 腾讯视频	<input checked="" type="checkbox"/>	在线视频	56817 ↑	+ 4.1	详情
3	<input type="checkbox"/>	 优酷	<input checked="" type="checkbox"/>	在线视频	36333 ↑	+ 14.9	详情
4	<input type="checkbox"/>	 乐视视频	<input checked="" type="checkbox"/>	在线视频	9236 ↓	-27.1	详情
5	<input type="checkbox"/>	 芒果TV	<input checked="" type="checkbox"/>	在线视频	7066 ↑	+ 2.1	详情
6	<input type="checkbox"/>	 搜狐视频	<input checked="" type="checkbox"/>	在线视频	6423 ↑	+ 25.2	详情

Table (3) Active devices using online video products in August 2017 Source: iResearch

Tencent video^[3] launched in 2011, with a brand-new slogan “never missed the good time”(不负好时光). Originated from Tencent, it adhered to the principle of content foremost and people oriented. With the high-quality video resources and proficient operation, it aggregates the various types of video and satisfies the user needs with multi-applications. By the end of 2016, it has been up to the second place of online video industry.

Explanation of the process of obtaining the attributes

^[2] “视频市场三足鼎立 爱奇艺市场份额突破 51%,”搜狐科技. 17 Feb 2017. http://www.sohu.com/a/126540923_544445

^[3] 腾讯视频, baidubaike. 06 Oct 2017 <https://baike.baidu.com/item/%E8%85%BE%E8%AE%AF%E8%A7%86%E9%A2%91>

Being addicted to the online videos, I firstly asked myself about what factors I value most.

According to the general aspects, I just put forward this question for some friends of mine in the way of interviewing or filling in the short questionnaire.

Based on the features of the product, I divided the variables into different groups, including function factor, content factor, marketing factors, operation factor and others.

Here is the primary research outcome: (valid sample size: 65)

Question :“which factors can be the determinants when you are using the online video product based on your experience?”

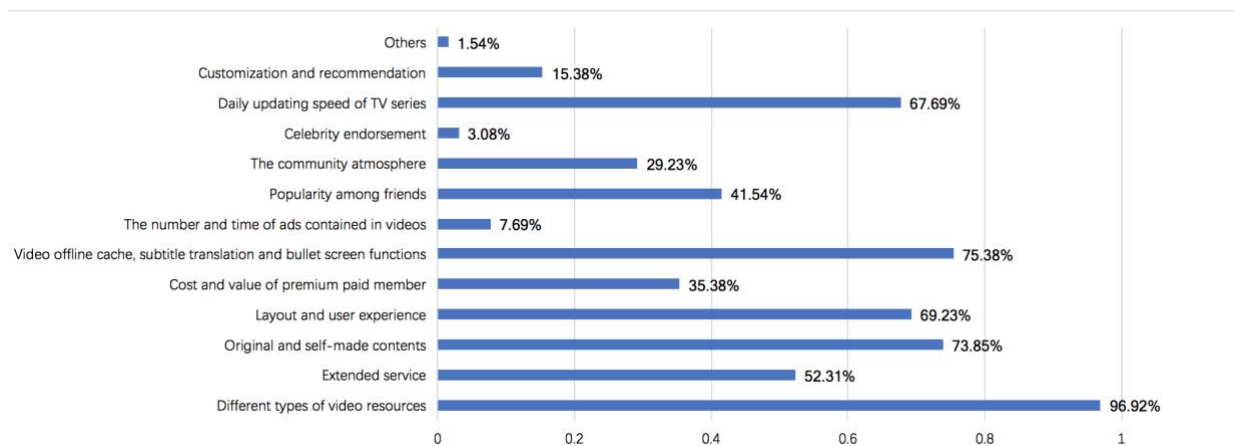


Table (4) The top 10 attributes user valued most

Classification of attributes:

- **content factor:** a. Different types of video resources;
- b. Original and self-made contents;

- **function factor:** a. Video offline cache, subtitle translation and bullet screen functions;

b. Daily updating speed of TV series;

c. Customization and recommendation;
- **marketing factor:** a. Cost and value of premium paid member;

b. Celebrity endorsement;
- **operation factor:** a. The community atmosphere;

b. Layout and user experience;

c. Extended Service
- **other factors:** a. Popularity among friends;

b. The number and time of ads contained in videos;

Summary of all the key attributes

On the grounds of the former survey, I summarized 10 attributes that people valued most, including

a. Different types of video resources;

It testifies the richness of one specific online video brand owns, which refers to the quantity

and quality of its resources.

b. Original and self-made contents;

It testifies the ability of produce high-quality videos, which might be the prior goal for online video companies want to realize in the future. Since the creative content is foremost and paramount for product operation.

c. Video offline cache, subtitle translation and bullet screen functions;

It reflects the complete functions that one online video product owns. The subtitle offline cache and bullet screen quality to some extent determine the rate that people use and gratify this product.

d. Daily updating speed of TV series;

For most of youngster, television can be replaced by online video products installed in PC or mobile, only if the online video product possesses the function of updating the newest TV series. Users are simply looking for one channel for binge-watching.

e. Customization and recommendation;

As the Big data and filter bubble popularize recently, the machine embedded with special algorithm will trail your online browsing history to supply accurate recommendations for

product operation.

f. Cost and value of premium paid member;

Nowadays, Chinese users are consciously developing the habit of paid membership for getting distinguished identity and exclusive privilege. For example, the users want to enjoy the TV plays or shows in advance and skip the ads in videos, they must pay for this VIP. In addition, the revenue of paid membership has been the second largest part for online video companies. Both of sides are paying much attention to this field construction.

g. The community atmosphere;

The discussion board to some degree will affect user experience when they are looking for valuable comments or information. There are sorts of comments, such as expressing love by fans, impolite abusing, less and unspectacular comments, etc. The community which has many polite and literate users might be helpful to create a comfortable atmosphere for the rest of people.

h. Layout and user experience;

the well-designed layout and smooth user experience of the online video products helps cultivate some loyal users, because they feel satisfied and comfortable when using your

product or service. If the layout is hard to control, most of them will abandon it and turn to the competitor product.

i. Extended Service;

The extended service refers to the sale board of drama/film derivative products, ordering movie tickets or online reading novels, which enhance the relationship between user and products, activate users' interest and increase user stickiness.

j. Popularity among friends;

As we all know, word-of-mouth (WoM) is a way for product promotion and marketing strategy. Your friends' comments will to some degree sway your selection and decision of the goods or service.

Explanation the process of getting the data

As I have collected the 10 attributes that people valued most, I was going to measure how important attributes to the individual. In the questionnaire, I specified the standard of evaluation into each attribute.

The MAAM survey:

In general, the Multi-Attribute Attitude model I used this survey is defined as:

$$A_0 = \sum_{i=1}^n W_i e_i$$

A_0 =users' overall attitude towards online video product

W_i =users' perceived importance of online video product attribute i

e_i = users' evaluation of online video product attribute i

n = number of valuable online video product attributes

To measure the perceived importance of online video product attribute (W_i), a 7-point importance scale ranging from very unimportance (1) to very important (7). Similarly, users' evaluation on a 7-point scale with strongly dissatisfied (1) and strongly satisfied (7).

Sending out the questionnaire online through WeChat and Weibo is a good and convenient way to get feedbacks in terms of online video product selection. Since online survey can be easier to reach target audience than offline.

Summary the results of the MAAM analysis

Results and Findings

- 1) General demographic characteristic of sampled selection of online video product.

- 98.53% of feedbacks came from mobile in contrast to the link clicked from PC.

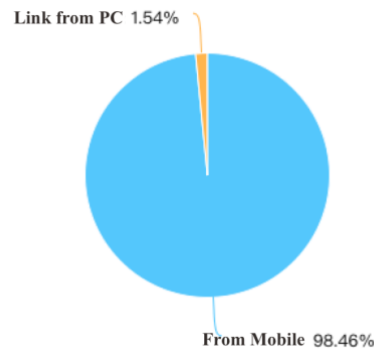


Table (5) Submit source

- The overall(valid) sample size is 65 except 3 who haven't used online video products because of time limit. The gender ratio (male/female) is 12/53, most of whom are postgraduate in their 18-25 from China. (details in Table-6).

Demographic variables	Sample (n=65)
1. Gender	
a. Male	12
b. Female	53
2. Age	
a. below 18	1
b. 18-25	62
c. 26-30	0
d. 31-40	1
e. 41-50	1
f. 51-60	0
g. above 60	0
3. Education	
a. below high school	1
b. graduate	28
c. postgraduate	36
d. above Phd	0
4. Occupation	
a. full-time student	51
b. Internet filed	4
c. worker	1
d. teacher	3
e. accounting	1
f. engineering	1
g. corporate staff	4
5. Location	
a. HongKong	20
b. Mainland China	41
c. Overseas	4

Table (6) Demographic information

2) Online video product use of frequency& selection

72.31% have a high frequency (Always& Almost every day used) of online video products.

With 66.15% and 63.08% users respectively, iQiyi and Tencent video have a large number of users for preemption

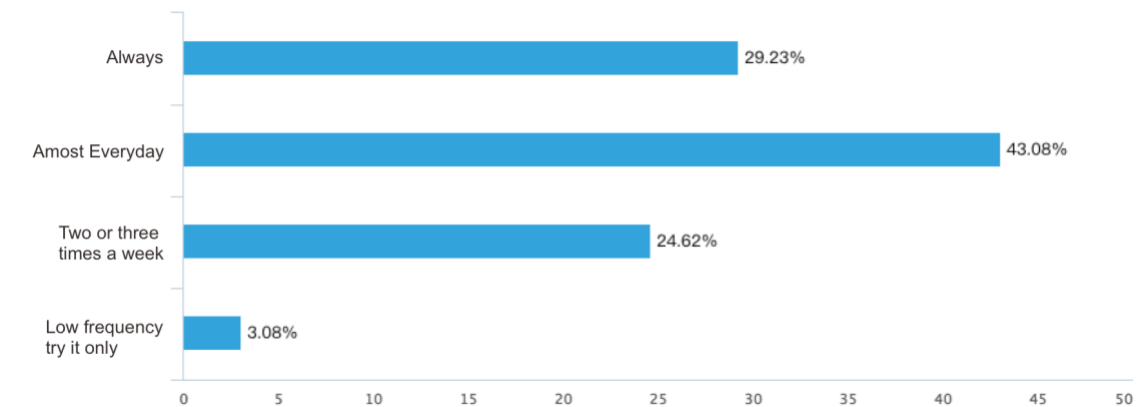


Table (7) Use of Frequency

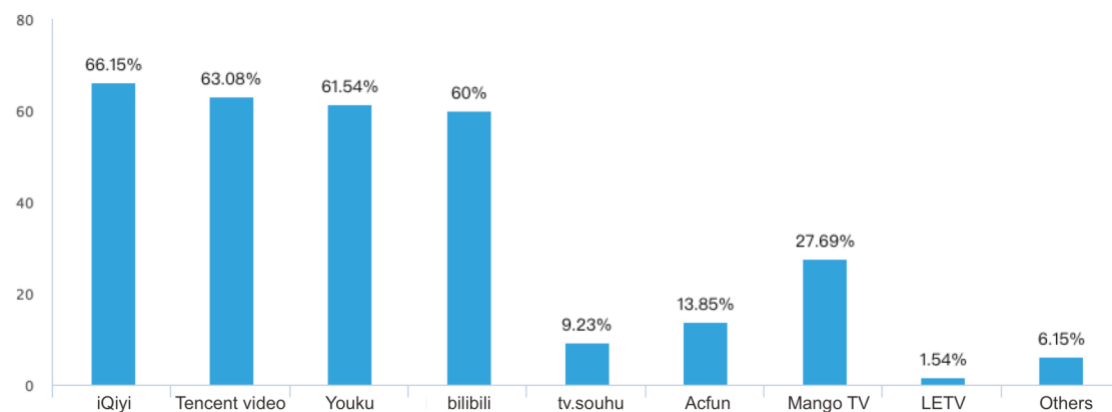


Table (8) Types of online video products ever used

3)The Multi-Attribute Attitude Model analysis

Classification	Major attributes of online video product	W _i	e _i		W _i *e _i	
		Importance	iqiyi score	Tencent video score	iqiyi attribute score	Tencent video attribute score
Content	Different types of video resources	6.6	5.43	5.35	35.84	35.31
	Original and self-made contents	5.35	5.38	5.06	28.78	27.07
Function	Video offline cache, subtitle translation and bullet screen functions	5.89	4.91	4.94	28.92	29.10
	Daily updating speed of TV series	6.11	5.42	5.43	33.12	33.18
	Customization and recommendation	5.14	4.72	4.77	24.26	24.52
Marketing	Cost and value of premium paid member	5.4	5.08	4.82	27.43	26.03
Operation	The community atmosphere	5.18	5	4.86	25.90	25.17
	Layout and user experience	6.25	5.26	5.11	32.88	31.94
	Extended Service	4.43	4.66	4.54	20.64	20.11
Others	Popularity among friends	4.74	5.31	4.88	25.17	23.13
Average		5.509	5.12	4.98		
Overall attitude (A0)					282.94	275.56

Table (9) the MAAM results in terms of online video products

- The importance of 10 attributes from users' view(W_i)

From the perceived and major attributes of online video product (W_i) in the Table (9), users rated the importance of the following attributes highly, including “different types of video resources (6.6)”, “layout and user experience (6.25)”, “daily updating speed of TV series (6.11)” and “video offline cache, subtitle translation and bullet screen functions (5.89)”, all of which are over average (5.509). Even the variety of video resources, layout and TV series updating speed are scored more than 6, compared to the rest. The result demonstrates the importance of high-quality content and functions for users. On the other hand, the low scores occur at the attributes of “extended service (4.43)” and “popularity among friend (4.74)”, which indicates that the extra service and others' comments on one specific online video product are seemingly

insignificant for user experience and selection, since they choose one product based on the practical and functional performance rather than additional services.

- The evaluation of attributes satisfaction (e_i)

Setting our insights into the performance between iQiyi and Tencent Video, we found neither of their average scores have exceeded the average number of W_i , which generally illustrated that users felt unsatisfied with their product or service when referring to those attributes. In terms of iQiyi, it gets a high score in the attributes of “original and self-made contents”, “extended service” and “popularity among friends”, while the last two probably get less attention from the users by referring to the column W_i . The salient mark in “original and self-made contents” shows that the image of original and successful self-production has impressed the public and takes effects when people select the online video product. Some representative works have attained a large amount of view traffic by means of IP films^[4] and high-quality contents, such as “U can U BiBi(奇葩说)”, “Best of us(最好的我们)”, “Yu Zui(余罪)”. Likewise, Tencent video performs well in the attributes of “extended service” and “popularity among friends”, like iQiyi. However, in the field of function attributes, Tencent video has a

^[4] IP films indicate that people recreate and adapt from the television by referring to those popular animation, novels or games.

higher score than iQiyi does, that is, “video offline cache, subtitle translation and bullet screen functions” and “daily updating speed of TV series”, which demonstrates Tencent video concentrates on improving the functions of their product, for creating a friendly user experience.

In addition, Tencent, acting as one of the biggest three Internet corporation in China, could support the Tencent video growth from financial to technology backend. A well-equipped technique team is ready to optimize the UI and UE at any time.

- The users’ overall attitude towards online video product ($W_i * e_i$)

As for iQiyi and Tencent video attributes score ($W_i * e_i$), it demonstrates that iQiyi has a higher score than Tencent video, which corresponds with the current market share situation (iQiyi: over 51%). Especially in self-created content and premium paid membership marketing, iQiyi have a comparative advantage over Tencent video because of their outstanding ability of creation and promotion, which has impressed the public “iQiyi equals to a large amount of creative productions.”

Discussion, Implications and Limitations

Implications:

According to the attributes analysis, we find that users attach importance to the amount of video resources and design of use interface. As for the focus on self-created content and paid membership of online video product has been consistently increased. UGC is deemed one factor that might be decisive for the corporate sustainable growth one day. Since some function of television can be replaced by online video product, there are more and more people concentrating on the daily updating speed of TV series.

On the characteristics of sample, we find that the younger generation has a high frequency of using online video products. I reckon it's a proper reference for manager to promote and operate their product.

Recommendations:

Based on the comparison between iQiyi and Tencent video, we find that iQiyi has a larger market share and great popularity than Tencent video. (66.15% of users have been using iQiyi).

In addition, both are comparable in terms of video resources and function settings, while there is a wide gap in the field of self-made contents and paid membership marketing strategy. In

contrast to W_i , iQiyi is supposed to enhance their comparative advantage in self-created contents but refine their strategy to promote their premium membership in order to build up a favorable brand image and persuasion, because the former question revealed that only 8/24 users are the member of iQiyi while Youku has 11/24. Probably Youku dominated the domain of membership for years based on a reliable brand.

Q:Have you ever paid for the membership of thr following online video products ?					
Valid sample(n=24)	iQiyi	Tencent video	Youku	bilibili	Mango TV
membership	8	6	11	3	1
Notice: the user might purchase more than one product membership					

Table (9) Quantity of Membership

For Tencent video, it may expand their video resource pool and improve the original capacity to get users increased. With the large accumulation of QQ users, it will be helpful and efficient to divert them to the video domain. Taking Mango TV as an example, it resorts to HNTV (the traditional television station) and high-qualified programs to help cultivate users' habits of video viewing.

Limitations :

Some limitations cannot be ignored during the process of analysis. One that the size of sample is a little bit small and most of them aged in the 18-25 group with a large slope of female. It

comes out with the unconvincing results to some degree. Besides that, there is no further question on users' preference and income, since the income capacity might be decisive for users to purchase membership service. Moreover, we adopt the rough way of collect data and analysis instead of taking online-offline interview and SPSS regression analysis.

Reference:

- [1] Ricky Yee-Kwong Chan “Demographic and attitudinal difference between active and inactive cardholders-the case of Hong Kong”. International Journal of Bank Marketing. 1997, 15/4: 117-125