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Specific user group's attitude differences toward two mobile-mailbox
-- QQ Mail & NetEase Mail Master

Since Ray Tomlinson chose the "@" symbol and transmitted messages from one computer to another, the story about the electronic mail started. With the exploding of the internet user, the reducing of the paper letters usage, and the widely arising of the market potential of the internet in the late 1990s, the age of "Email" has begun in earnest (Phrasee,2019). With the pace of life gradually accelerated, people use email to communicate and share files not only on the original computer but on tablet computers and smartphones. The announcement of the first iPhone and the appearance of Apple's App Store have opened up a new era of mobile applications (Agency,2018). Nowadays, the mobile-mailbox application (app) has become an essential part of our life.

When it comes to an app, the email is not only about sending and receiving emails anymore. Identify consumer segments and meet their needs are indispensable. In today's evolving society, the Chinese e-mail user market has matured. It can be said that QQ and NetEase are two of the biggest companies when we look at the domestic email services market. They both have a very broad, stable, and growing user base. Only on Android mobile platform, the cumulative total downloads of QQ mailbox applications have exceeded 2.5 billion, and the cumulative total downloads of NetEase mailbox applications also have exceeded 0.7 billion (qimai,2019). More importantly, the biggest demand for Chinese mailbox users is to send and receive "work" emails (iiMedia,2018). It leads to the purpose of this study: to compare a specific user group's attitude differences of QQ Mail and NetEase Mail Master. This study can help to issue QQ Mail and NetEase Mail Master to increase their brand preferences and adjust their marketing strategies more effectively.

Methodology and data collection

Participant and Materials

Young adults (30 people, age range: 25–35 years) and middle-aged adults (30 people, age range: 36–54 years) were recruited through WeChat. All the participants have full-time or part-time jobs in mainland China and have used or are using both QQ Mail and NetEase Mail Master. 10 of 60 participants also participated in the first step that obtains the main 6 out of 10 attributes. The survey was carried out through web survey in September 2019 in WeChat. Every participant needs to finish every question clearly and based on their personal ideas. There's no standard answer for each question. All the questions from the questionnaire can not be skipped. Each participant is only allowed to fill out the questionnaire once.

Valence and arousal ratings

In order to measure how important each attribute is to the individual and how each brand fulfills each attribute, valence and arousal were judged on 7-point scales (1 = least important/satisfied and 7 = most important/satisfied).

Procedure

In the first step, choose 10 participants and give them a form with the 10 attributes. Let them choose the most 6 important attributes out of 10. The result is the figure below. In the main questionnaire step, 60 participants need to fill out an online questionnaire that has eight questions, including five general background multiple-choice questions and three key questions. These three key questions are based on the six answers from the previous step (Memory Capacity, Usability, Function, Popularity, Ads, and Appearance/Personality). Multi-Attribute Attitude Model (MAAMs) was adopted in those 3 key questions to compare this specific group of users' attitude differences toward QQ Mail and NetEase Mail Master applications. In the end, recycling data and delete data that didn't meet the requirement.

10	Memory Capacity: storage space
9	Usability: easy to use
8	Function: add-ons, mail withdraw
7	Popularity: everyone use it
7	Ads: spam, pop-up ads
6	Appearance / Personality: color, themes
5	Safety: email privacy
4	Compatibility: download in any kind of mobile device
2	Multiple domain name: one email multi domain name
2	Price: freemium

Major findings

Sample profile

The detailed sample profile in terms of gender, education, monthly income, frequency of use, prefer application is depicted in Table I.

Overall, nearly two-thirds of the 60 sampled users were female. Concerning their education background, only 3 out of 60 sampled users had completed high school or left school earlier; 24 had completed post-secondary/university education; 33 had completed postgraduate or higher education. Of the respondents, the highest proportion of the monthly income (23 out of 60) was between 5001-10000 (¥) and the rest of the sampled users were about evenly distributed in the remaining monthly income stages. The majority of the respondents were using QQ Mail and NetEase Mail Master 2-7 times per week. Two-thirds of the sampled users preferred using QQ Mail rather than NetEase Mail Master or other mailbox apps.

In terms of age and preference, the group of the present sample (25-54) called prime working-age and had the largest proportion of age structure in China (China,2018).

According to the cross-analysis result, more than 80% of the middle-aged adults sampled users prefer QQ Mail. Young adults sampled users prefer NetEase Mail Master more than QQ Mail. Young adults sampled users use the mobile-mailbox app much more frequently

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than middle-aged adults sampled users. In terms of education, monthly income, and frequency of use, a large percentage of sampled users received higher education and have a middle monthly income. Sampled users with higher education levels use these two mobile-mailbox applications more frequently.

Table I							
Characteristics of the specific user group in mainland China							
Demongraphic variable	Sampled Users (n=60)						
1. Gender a.Male b.Female	22 38						
Education Below post secondary/university Post-secondary/university Above post secondary/university	3 24 33						
3. Monthly income(¥) a. under 2000 b. 2000-5000 c. 5001-10000 d. above 10000	13 13 23 11						
4. Frequency of using a. Seldom b. 2-7 times per week c. Several times per day	11 27 22						
5. Which is prefer a. QQ Mail b. NetEase Mail Master c. Other	39 16 5						

Attitudes towards two mobile-mailbox app (MAAMs)

Table II shows the average score in all the attributes within three key questions. By summing the weighted performance scores of all the 6 attributes (i.e. \sum n i=1 wi ei), the overall attitude score of those two mobile-mailbox applications was also computed and is shown in Table II (in red color). As shown in Table II, the significant differences of all the six attributes toward QQ Mail and NetEase Mail Master are in: 1. The relationship between "Importance" and "QQ Mail (importance) Score"/ "NetEase Mail (importance) Score"; 2. The comparison between "QQ Mail (importance) score" and "NetEase Mail (importance) score", especially in "Appearance/ Personality"; 3. The average and overall attitude score. In

the following paragraphs, a more detailed analysis, combining Table I and Table II, will be made.

Table II

Users' attitudes towards two mobile-mailboxes - MAAM

Attribute	Importance	QQ Mail Score	NetEase Mail Score	QQ Mail attribute score	NetEase Mail attribute score
Function	5.15	5.23	5.00	26.93	25.75
Popularity	4.98	5.37	4.90	26.74	24.40
Usability	5.65	5.28	5.12	29.83	28.93
Memory Capacity	5.38	4.95	4.85	26.63	26.09
Appearance / Personality	4.45	4.68	4.80	20.83	21.36
Ads	4.77	4.18	4.13	19.94	19.70
Average	5.06	4.95	4.80	150.90	146.23

As indicated by columns 2 and 3&4 in Table II, both of mobile-mailbox applications got lower importance score than the original in "Usability", "Memory/Capacity", and "Ads". Since two mobile-mailbox applications are frequently used by the sampled users (Table I) and they use mailbox mainly at work, users have higher usability requirements. According to the mobile-mailbox hot issues, the Artificial Intelligence operating system of the mailbox is being optimized and the cloud service technology is maturing (iiMedia,2018). In short, "Usability" and "Memory/Capacity" are important attributes that the company is fulfilling consumer attitudes, is not exceeding yet. The score of "Ads" attributes are the lowest in both apps. The different needs in ads causing the conflict. Advertising is a big part of where the revenue of online media companies come from. Sometimes advertising is one of the "freemium" strategies. Though the sampled users are people that mostly have a good income (Table I), they want to use the free mobile-mailbox app without payment as well. Namely, the "Ads" attitude needs to be concerned by both QQ Mail add and NetEase Mail Master add.

As indicated by columns 2 and 3 in Table II, three QQ Mail (importance) scores are higher than the original (importance) scores (Function, Popularity, and Appearance/Personality). These three attributes represent the three core features and competencies of QQ Mail: translate foreign emails, social software related, and personalize profile picture/ domain name (iiMedia,2018). But when we look at columns 2 and 4, all the NetEase Mail (importance) scores are lower than the original (importance) scores and the QQ Mail (importance) scores except the "Appearance/ Personality" attribute. The "Appearance/ Personality" of NetEase Mail Master is also the only attribute that higher than QO Mail.

By contrast column 3 and column 4, the result doesn't mean that QQ Mail is generally better than NetEase Mail Master. Considering the sampled users' preference in Table I and the popularity score in Table II, the result can only provide further evidence on the great appearance/ personality of the NetEase Mail Master. This indicates that appearance/ personality might be the key that young adults (25-35 years) prefer NetEase Mail Master more than QQ Mail.

Overall, the "QQ Mail attribute score" is higher than the "NetEase Mail Master attribute score". This result is different from the iiMedia report "2015-2018 China Personal Email Industry Research" because this questionnaire focuses on mobile-mailbox applications rather than just two email-boxes. People focus on the way it uses and what it looks more. The safety issue is the biggest concern for users in the iiMedia report. It is even not become a discussion attitude in this case.

Implications & Recommendations

In conclusion, the present study demonstrates that QQ Mail has a higher attitudinal score rather than NetEase Mail Master. Though the QQ Mail app's advantages are obvious, it still needs to maintain its three core competitiveness and improve other attitudes. The main users are middle-aged adults who have a good job, good income, and higher educated.

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Simplify appearance/ personality and increase memory capacity are the things that QQ Mail needs to pay attention to. By the way, QQ Mail app's high brand preference is inseparable from the user loyalty to the related instant messaging software service: Tencent QQ.

Since the NetEase Mail Master app is newer than the QQ Mail app, it is still in the development stage. NetEase Mail Master app needs to expand the number of users through the user's primary preference for its original email (iiMedia,2018). Meanwhile, keep the attractiveness of its appearance/personality to keep its young adult users. Improving new functions might also work, such as the face recognition security system. Furthermore, it would be better to add some proper publicity. In short, these recommendations based on the specific user group and the present findings are meant to alert two mobile mailbox application companies. They need to improve the more targeted and user-friendly mobile mailbox applications.

References

- Phrasee. (2019, March 12). A brief history of email: dedicated to Ray Tomlinson. Retrieved October 2, 2019, from https://phrasee.co/a-brief-history-of-email/. (Phrasee, 2019)
- Agency, J. R. (2018, February 2). Brief History of Mobile Apps. Retrieved October 2, 2019, from https://expertise.jetruby.com/brief-history-of-mobile-apps-286fbbf766a9. (Agency,2018)
- iiMedia Research 艾媒咨询. (2018). 艾媒报告 |2015-2018 中国个人邮箱行业研究报告. 艾 媒报告 |2015-2018 中国个人邮箱行业研究报告. 广州, 广东. Retrieved from https://www.iimedia.cn/c400/61337.html. (iiMedia,2018)
- 七麦数据 安卓市场: 榜单:QQ 邮箱. (2019, August 28). Retrieved October 2, 2019, from https://www.qimai.cn/andapp/downTotal/appid/108.
- 七麦数据 安卓市场: 榜单:网易邮箱大师. (2019, September 26). Retrieved October 2, 2019, from https://www.qimai.cn/andapp/downTotal/appid/570. (qimai,2019)
- China Age structure. (2018, January 20). Retrieved October 2, 2019, from https://www.indexmundi.com/china/age_structure.html. (China,2018)