

MSMK7002A

Consumer Insights Group Project

A Qualitative and
Quantitative Analysis on
Consumer Perception of
Apple and Lenovo Laptops

Team 10



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Part 1 .

Design of Questionnaire



5 Interviews

- Conducted interviews with 5 people with diverse backgrounds (ages, education, occupation, etc)
- Formed the basis for choosing attributes



3 Types of Questions

- Type 1 - Demographics and Segmentation-related
- Type 2 - Ei - for laptops as general
- Type 3 - Bi - for two brands

Part 1.1

Overview of Interviews



Ages of interviewees

Between 18-34



Occupation

3 University Students
2 Employees



Education Background

3 Mainland China
1 HK & UK
1 HK & Japan



Brands chosen

MacBook (Win installed)
MacBook; Dell-Alienware
Asus; Sony

Most Mentioned Point of Consideration	Number of Times Mentioned by Interviewees
Price	5
OS limit	4
Performance	4
Battery	2
Service	2
Reputation	2
Design	2

Part 1.2

Type I Questions

Demographics and Segmentation-related

7 Questions

- What is your gender?
- What is your age?
- Did you have any overseas experiences (eg. study, work, etc.)
- What is the brand of your laptop?
- What is the most important usage scenario of your laptop?
- Have you ever chosen/not chosen a laptop due to the restriction of its operating system(s)?
- When you choose a laptop based on OS, which OS did you choose?

4 Expected Segmentations

1 Overseas

Segment 1: people who have overseas experiences

Segment 2: people who do not have overseas experiences

2 OS choice

Segment 1: people who have the experience of choosing a laptop due to the restriction of its operating system(s)

Segment 2: people who do not have the experience of choosing a laptop due to the restriction of its operating system(s)

.....

Part 1.2

Type 2 Questions

Ei - for laptops as general

- *8. 假设您正在考虑购买笔记本电脑，请您对以下产品属性的吸引力进行评分，-3分为完全无吸引力，+3分为非常有吸引力

Assume you are considering buying a laptop, please rate the attributes below on a -3 to +3 scale (-3 is extremely undesirable, and +3 is extremely desirable)

	-3	-2	-1	0	+1	+2	+3
较高的价格 High Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
优质的品牌 Good Brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
强大的性能 Strong Performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
优秀的便携性 High Portability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
精美的设计 Great Design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
持久的续航 Long Battery Life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
良好的系统兼容性 Good Compatibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
卓越的产品服务 Excellent Service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Questions of 8 attributes are asked in the survey
- Respondents are asked about desirability of certain attributes about laptops in general (without the impact of brands)

Part 1.2

Type 3 Questions Bi - for two brands

请根据您对该品牌笔记本电脑的了解，对以下选项进行判断，-3分为您完全不认可该品牌的这项属性，+3分为您完全认可该品牌的这项属性 (Please tell us what you think about Apple/Lenovo on these features)

*9. 苹果笔记本电脑 (Please evaluate Apple accordingly)

	-3	-2	-1	0	+1	+2	+3
有较高的价格 High Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有优质的品牌 Good Brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有强大的性能 Strong Performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有优秀的便携性 High Portability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有精美的设计 Great Design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有持久的续航 Long Battery Life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有良好的系统兼容性 Good Compatibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有卓越的产品服务 Excellent Service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*10. 联想笔记本电脑 (Please evaluate Lenovo accordingly)

	-3	-2	-1	0	+1	+2	+3
有较高的价格 High Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有优质的品牌 Good Brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有强大的性能 Strong Performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有优秀的便携性 High Portability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有精美的设计 Great Design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有持久的续航 Long Battery Life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有良好的系统兼容性 Good Compatibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
有卓越的产品服务 Excellent Service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• Respondents are asked to rate the two brands on a scale of -3 to +3

- Unlike Ei questions that ask for desirability of attributes, Bi questions ask for people's acknowledgement on the specific brand's attributes

Part 2 .

Articulation of Choices

What choices did we make? & How we made those choices?

**Choice of
Product
Category**



**Choice of
Brands**



**Choice of
Segments**



**Choice of
Attributes**



Part 2.1

Choice of Product Category

HIGH-EFFORT ATTITUDE - HIGH MOTIVATION FOR INFORMATION ELABORATION



**Problem
recognition**

**Information
Search**

**Evaluation of
alternatives**

**Purchase
decision**

**Postpurchase
behavior**

Technology changing

willing to handle
technological instruments

**Availability of a large
number of products**

confusing the decision
making

**Preferences of customers
nowadays**

design, brand, energy efficiency,
low price, user-friendly, and
portability etc.

Part 2.2

Choice of Brands

- Why Choosing Lenovo and Apple?



Both in Top 5 (market share)

Lenovo ranks 1st while
Apple ranks 4th in 2021 Q1



**Similar Product Lines/
Price Layers**

Similar product lines and
different price layers



Both Popular

Both popular among students
and working people



**Highest Share in their
designated OS**

The highest market share in
Windows and Mac OS as a brand

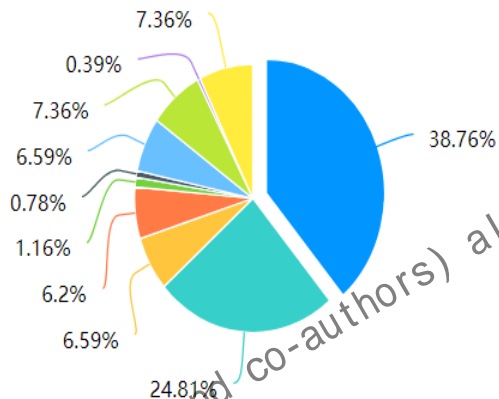
Brands	2021 Q1 Shipments	2021 Q1 Market Share
Lenovo	20,401	24.3%
hp	19,237	22.9%
DELL	12,946	15.4%
Apple	6,692	8.0%
acer	5,837	7.0%
Others	18,868	22.5%
Total	83,981	100.0%

Part 2.2

Choice of Brands

Survey results show a good fit for our brand choice

Q: What is the brand of your laptop? (if you have more than one laptop, please choose the brand you use most frequently)



苹果 (Apple) 联想 (Lenovo) 戴尔 (Dell, including Alienware) 微软 (Microsoft) 小米 (Xiaomi)
三星 (Samsung) 华为 (Huawei) 华硕 (ASUS) 宏碁 (Acer) 其他

Others: HP (3.49%), HASEE (1.16%), MSI (0.39%), Razer (0.39%)



38.76% vs. 24.81%

Among all 13 brands, Apple takes up to 38.76% while Lenovo ranks the second with 24.81%



63.57%

63.57% of respondents are current users* of Apple and Lenovo



Less than 7%

All other 11 brands take less than 7% share

* “current users” means that they have but may not only have Apple or Lenovo laptops. In few cases, respondents might have both.

Part 2.3

Choice of Segments

Th

Response

with overseas experience



- Considered to be **price conscious** in choosing laptop
- **More cost effective** purchase Macbook
- Living in an environment **culturally penetrated by Apple**

Call:

```
lm(formula = diff_overall ~ data$Gender..M.1..F.0.no.answer. +  
  data$Age + data$Oversea..Yes.1..No.0. + factor(data$System) +  
  factor(data$OS), data = data)
```

Residuals:

Min	1Q	Median	3Q	Max
-67.251	-9.771	-1.878	9.289	130.367

Coefficients: (1 not defined because of singularities)

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.8063	5.2895	-0.531	0.59620
data\$Gender..M.1..F.0.no.answer.	4.3682	2.8197	1.549	0.12260
data\$Age	0.7266	2.0369	0.357	0.72159
data\$Oversea..Yes.1..No.0.	12.8880	2.7171	4.743	3.52e-06 ***
factor(data\$System)1	-2.2699	2.9873	-0.760	0.44805

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 21.11 on 252 degrees of freedom

(因为不存在, 3个观察量被删除了)

Multiple R-squared: 0.1275, Adjusted R-squared: 0.1102

F-statistic: 7.364 on 5 and 252 DF, p-value: 1.834e-06

ment

spondents

as experience(46.9%)



High function/price ratio

matters more

More costly in Chinese

market to purchase

Macbook

Lenovo's long-term & in-

depth **cooperation with**

business customers in

Chinese market

Part 2.4

Choices of Preliminary Attributes

8 importance attributes derived from interview insights and outside research

Price / Brand / Performance / Portability / Design / Battery life / Compatibility / Service

- Insights from the interviews

- **Brand, price** and **performance** were mentioned by all five respondents
- One of the respondents, a big fan of Apple, highlighted that Apple's laptops had strong endurance (**battery life**), especially after the introduction of the M1 chip
- Respondents also cared about the **compatibility** heavily, which is directly related to the OS limitation of softwares and games
- Apart from these, factors such as **portability, design** and **after-sales service** were considered useful when purchasing a laptop

Table 1. Laptop Attributes according to Importance Level

No	Attribute	Rating
1	Brand	3
2	Screen Size	8
3	Processor	2
4	VGA	6
5	RAM Memory	1
6	Hard disc	4
7	Operating System	5
8	Laptop Weight	9
9	Design	7
10	Battery	11
11	Features	12
12	Camera	10

- Reference to outside research

- We referred to a study on consumer preferences for laptop. The attributes selected for the study were almost the same as ours
- We also found that three of the top 5 attributes (RAM memory, processor, hard disc) were considered to be parts of the product performance

Analysis Based on Fishbein's Model

How we utilize the Fishbein's model of attitudes?



Overview of Survey Respondents

Information of survey respondents



Choices of attributes

Select 5 out of 8 attributes of laptops



Compute variables

e_i : average e_i of 5 attributes for each segment

b_i : average b_i of 5 attributes for each brand

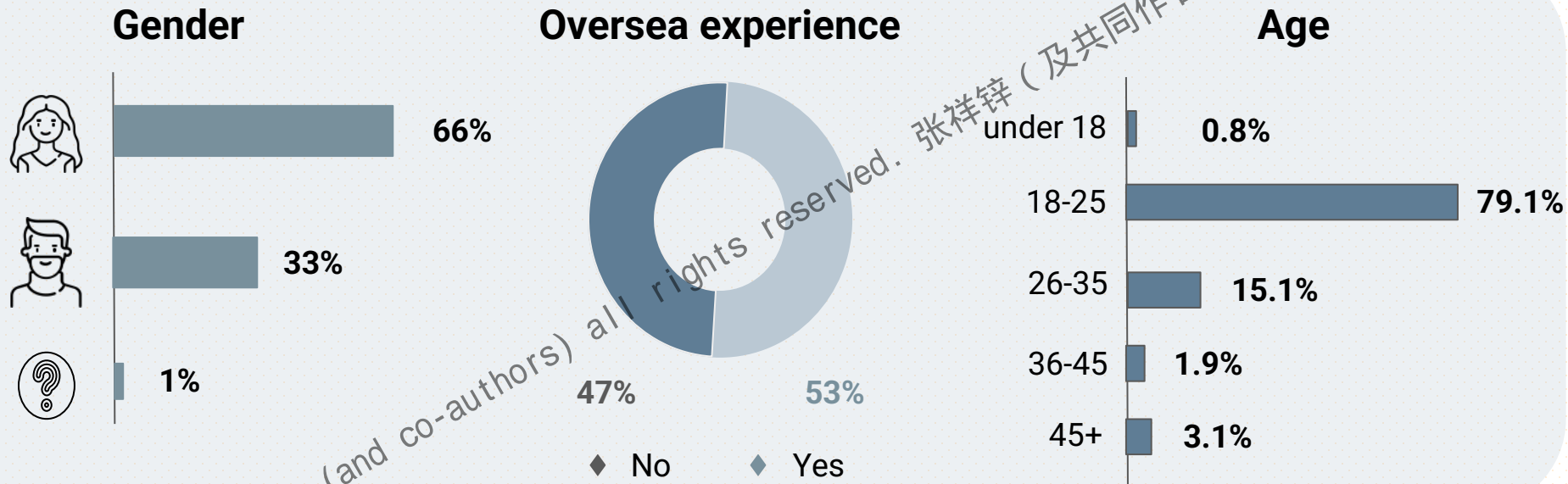


Key findings

- Segment-specific findings
- Attribute-specific findings

Part 3.1

Overview of Survey Respondents



- Sample size=258
- Survey platform: 问卷星 (wjx.cn)

Part 3.2

Choices of Final Attributes

Selected 5 most-important attributes

- ✓ **Price**
- ✓ **Brand**
- ✓ **Performance**
- ✓ **Battery life**
- ✓ **Compatibility**

* ~~Portability~~

* ~~Design~~

* ~~Service~~

WHY choose these 5 attributes?

- **High relevance**

- Both two segments give high ei score for these 4 attributes: good brand, strong performance, long battery life and good compatibility.

- Price is an important factor when considering purchase a laptop. However, due to the specificity of the model designed questions, it received a low ei score.

- **Sufficient information**

- Fully reflect the general user attitude preferences towards Apple and Lenovo.

Part 3.2

Choices of Final Attributes

Selected 5 most-important attributes

```
Call:
lm(formula = data$overall_apple ~ diff_price + diff_brand + diff_per +
    diff_por + diff_desi + diff_batt + diff_compati + diff_ser,
    data = data)
```

Residuals:

Min	1Q	Median	3Q	Max
-65.233	-9.140	-0.191	6.225	51.581

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	20.2331	1.3418	15.079	< 2e-16 ***
diff_price	0.9380	0.2313	4.055	6.72e-05 ***
diff_brand	-0.3764	0.3284	-1.146	0.25283
diff_per	0.5693	0.2742	2.077	0.03887 *
diff_por	0.7408	0.2471	2.998	0.00299 **
diff_desi	0.6606	0.2835	2.330	0.02061 *
diff_batt	0.3995	0.2559	1.561	0.11977
diff_compati	0.2051	0.1796	1.142	0.25469
diff_ser	0.8938	0.2874	3.110	0.00209 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 14.16 on 249 degrees of freedom

(因为不存在, 3个观察量被删除了)

Multiple R-squared: 0.3883, Adjusted R-squared: 0.3687

F-statistic: 19.26 on 8 and 249 DF, p-value: < 2.2e-16

Call:

```
lm(formula = data$overall_lenovo ~ diff_price + diff_brand +
    diff_per + diff_por + diff_desi + diff_batt + diff_compati +
    diff_ser, data = data)
```

Residuals:

Min	1Q	Median	3Q	Max
-65.233	-9.140	-0.191	6.225	51.581

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	20.23311	1.34183	15.079	< 2e-16 ***
diff_price	-0.06202	0.23133	-0.268	0.7889
diff_brand	-1.37641	0.32841	-4.191	3.86e-05 ***
diff_per	-0.43069	0.27416	-1.571	0.1175
diff_por	-0.25920	0.24708	-1.049	0.2952
diff_desi	-0.33937	0.28354	-1.197	0.2325
diff_batt	-0.60053	0.25589	-2.347	0.0197 *
diff_compati	-0.79494	0.17962	-4.426	1.44e-05 ***
diff_ser	-0.10618	0.28735	-0.370	0.7121

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 14.16 on 249 degrees of freedom

(因为不存在, 3个观察量被删除了)

Multiple R-squared: 0.4362, Adjusted R-squared: 0.4181

F-statistic: 24.08 on 8 and 249 DF, p-value: < 2.2e-16

Part 3.3

Analysis using Fishbein's Model Overview

Segment1: With Overseas Experience				Segment2: Without Overseas Experience			
Attitude Measurement : Apple							
	bi	ei	biei		bi	ei	biei
high price	2.007	-0.051	-0.103	high price	1.579	-0.653	-1.031
good brand	2.387	2.168	5.174	good brand	1.942	1.893	3.676
strong performance	1.934	2.292	4.433	strong performance	1.545	2.273	3.512
long battery life	1.650	2.015	3.323	long battery life	1.132	2.140	2.424
good compatibility	0.029	1.810	0.053	good compatibility	-0.050	2.116	-0.105
overall			12.881	overall			8.476
Attitude Measurement: Lenovo							
	bi	ei	biei		bi	ei	biei
high price	0.358	-0.051	-0.018	high price	0.545	-0.653	-0.356
good brand	1.080	2.168	2.342	good brand	1.298	1.893	2.456
strong performance	1.350	2.292	3.095	strong performance	1.388	2.273	3.156
long battery life	0.927	2.015	1.868	long battery life	1.066	2.140	2.282
good compatibility	1.489	1.810	2.696	good compatibility	1.438	2.116	3.042
overall			9.982	overall			10.579

Part 3.3

Segment-specific Findings(1)

Consumers' Attitudes differ drastically from different segments

Key Observation: Segment 1 prefers Apple over Lenovo, while Segment 2 prefers Lenovo over Apple

Segment1: With Overseas Experience				Segment2: Without Overseas Experience			
Attitude Measurement : Apple							
	bi	ei	biei		bi	ei	biei
high price	2.007	-0.051	-0.103	high price	1.579	-0.653	-1.031
good brand	2.387	2.168	5.174	good brand	1.942	1.893	3.676
strong performance	1.934	2.292	4.433	strong performance	1.545	2.273	3.512
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overall			12.881	overall			8.476
Attitude Measurement: Lenovo							
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good compatibility	1.489	1.810	2.696	good compatibility	1.438	2.116	3.042
overall			9.982	overall			10.579

Part 3.3

Segment-specific Findings(2)

Observations on importance of attributes

Characteristics of two segments

ei	segment1: with oversea experience	segment2: without oversea experience	difference
high price	-0.051	-0.653	0.602
good brand	2.168	1.893	0.275
strong performance	2.292	2.273	0.019
long battery life	2.015	2.140	-0.126
good compatibility	1.810	2.116	-0.305

- **Price sensitivity:** Segment 2 is more price sensitive than Segment 1
 - People with overseas experiences tend to come from relatively wealthier backgrounds
- **Brand awareness:** Segment 1 has a higher preference to purchase laptop from big-name brands
 - similar with price sensitivity
- **Compatibility requirement:** Segment 2 has a higher demand on the compatibility
 - many schools/workplaces in mainland lack access to resources that is compatible with all operating systems

Part 3.4

Attribute-specific Findings (I)

Comparative Strengths and Weaknesses for Apple and Lenovo

	Segment 1: With Overseas Experience		Segment 2: Without Overseas Experience	
b_i	Apple	Lenovo	Apple	Lenovo
high price	2.007	0.358	1.579	0.545
good brand	2.387	1.080	1.942	1.298
strong performance	1.934	1.350	1.545	1.388
long battery life	1.650	0.927	1.132	1.066
good compatibility	0.029	1.489	-0.050	1.438

Note: the larger number of the two brands is marked in dark red

Both segments reached consensus on the comparative strengths and weaknesses for the two brands.

All respondents tend to believe that **Apple** laptops:

- call for a **higher** price
- belong to a **better** brand
- have **stronger** performance
- have **longer** battery life
- are **worse** in compatibility

Part 3.4

Attribute-specific Findings(2)

Opinions towards Apple and Lenovo across segments

	Segment 1: With Overseas Experience			Segment 2: Without Overseas Experience		
b_i	Apple	Lenovo	Difference	Apple	Lenovo	Difference
high price	2.007	0.358	1.650	1.579	0.545	1.034
good brand	2.387	1.080	1.307	1.942	1.298	0.644
strong performance	1.934	1.350	0.584	1.545	1.388	0.157
long battery life	1.650	0.927	0.723	1.132	1.066	0.066
good compatibility	0.029	1.489	-1.460	-0.050	1.438	-1.488
Overall attitude(biei)	12.881	9.982	Apple wins	8.476	10.579	Lenovo wins

The difference between the scores given by Segment 2 to the two brands is smaller.

- **Price:** prefer basic products of the brand
- **Brand:** lower degree of brand familiarity
- **Performance:** less users of Apple in proportion
- **Battery life:** Apple's strength in battery life is not made aware
- **Compatibility:** similar across both segments

Preference of Lenovo over Apple in segment 2

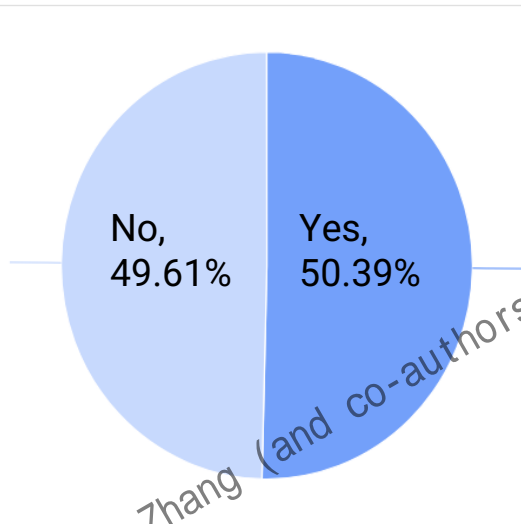
- Mainly driven by Apple's strong disadvantage in **compatibility**
- Comparative advantages in **brand image**, **performance** and **battery life** are not as evident as in segment 1

Part 3.5

Findings from survey

In an either-or situation, almost 65 % of respondents would give up Mac OS

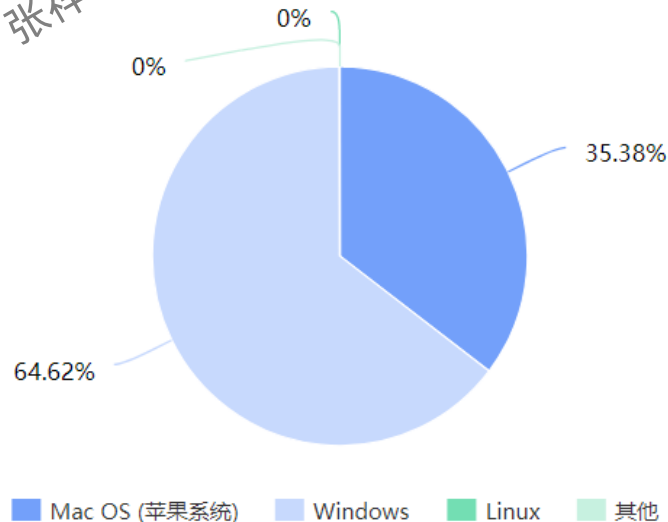
Q: Have you ever chosen/not chosen a laptop due to the restriction of its operating system(s)?



If "YES"



Q: When you had to choose a laptop based on OS, which OS did you choose?



Note: If a respondent answered "yes" to the first question, then we direct the respondent to the second question. If the answer is "no", the respondent will be directed to the next part and skip the second question.

Part 3.5

Key Finding from survey

Our finding is consistent with real-world market share

Global Notebook PC Market Share by Operating System
(Preliminary Results, % of Total Shipments)

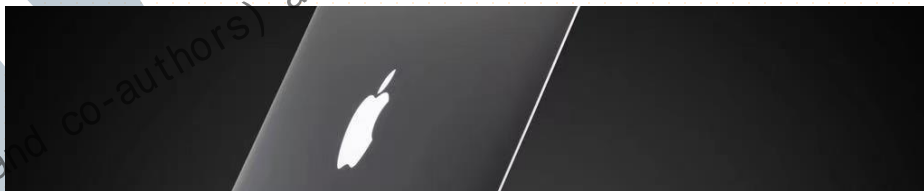
Operating System	Q1 '21	Q1 '20
Windows	73.0%	79.6%
Chrome	17.7%	17.7%
MacOS	8.4%	7.8%
Others	0.9%	0.9%
Totals	100.0%	100.0%

- Our survey shows that almost **65% of people would choose Windows and give up Mac OS** if they face have to choose one between the two.
- Our finding is consistent with the fact the Windows captures almost **10 times more** Global Notebook PC Market Share by Operating System

Source: "Strategy Analytics: Notebook PC Delivered Strong Q1 2021 as Hybrid Work Model Emerges", May 13, 2021, <https://news.strategyanalytics.com/press-releases/press-release-details/2021/Strategy-Analytics-Notebook-PC-Delivered-Strong-Q1-2021-as-Hybrid-Work-Model-Emerges/default.aspx>

Part 4 .

Key Recommendations for APPLE



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Part 4 .

Key Recommendation #1

💡 Choose the communicating source wisely: Adopt a localized culture penetration strategy

Down-to-earth product marketing & branding on **Bilibili platform** to reach and please Gen Z consumers



Deliver the message triggering positive emotions

Launch a campaign targeting at Chinese university students, e.g., release **Behind the Mac** (致敬Mac背后的你) commercial series **starring freshmen** during back-to-school season and encourage students to publish UGC

Part 4 .

Key Recommendation #2

Apple can promote more on batteries

Product	Battery Life
Macbook Pro	20/21 hrs
Macbook Air	18 hrs
X1 Carbon	19.5 hrs
X1 nano	13.6 hrs
Xiaoxin Pro 16	14.1 hrs

Battery life is important...



VS.

Lenovo

perform better
in battery life

Apple's strength in
battery life is not
made aware

Comparative Message: Invite KOLs to do the evaluation in battery life to compare apple with other brands



- Targeted advertise on battery life to customers who do not have oversea experience



Part 4 .

Key Recommendation #3



Apple's fan community

- Recommendation of accessories
- Skills of using Macbook
- Comments on product
- Hidden function

Shorten psychological distance
and meet symbolic needs



Campaigns

- Fan party: share internal stories and interact with fans
- Exhibition of artist consumers' work



People who **have**
overseas experiences
have a **better**
impression on Apple
overall



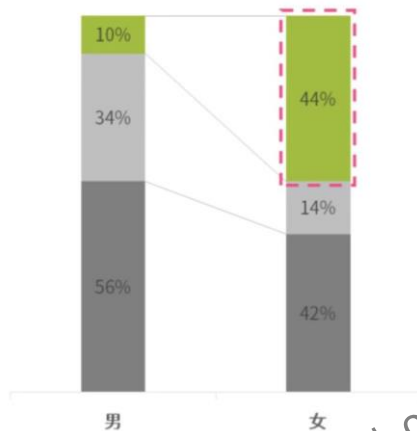
Make them more **loyal**

Part 4 .

44% 女性用户不知道自己的“双系统”从何而来

Mac上安装Windows的方式

■ BootCamp ■ 虚拟机 ■ 我也不清楚



For double operating systems

- 44% female Mac customers are confused
- 10% male Mac customers are confused

(<https://www.pingwest.com/a/52011>)

Key Recommendation #4

- Customer education of double operating systems
- Optimize the compatibility
- Mere Exposure Effect

- Last finding shows 65% people prefer Windows over Mac OS
- Windows captured the major market share by operating system

Apple can focus on B2B rather than only on B2C to increase market share

eg. cooperating with companies or schools to provide the special discounts/free tutorials for Mac system using

Instead of focusing on establishing strategic partnership with large corporations in China, to compete with Lenovo in the laptop market, Apple could collaborate with SMEs (Small and Middle-sized enterprises) instead.

<https://www.cnbeta.com/articles/tech/1208891.htm>

Part 5 .

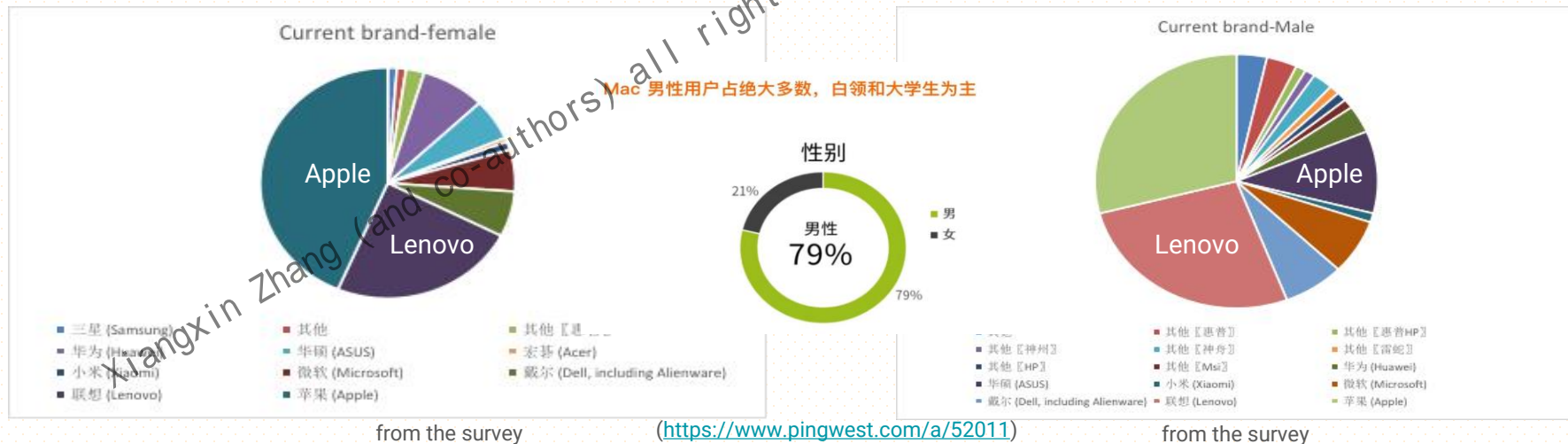
Limitations and Future Research

#1 Lack of representation in our survey samples

- The results may not be very representative to the mass market (Age & Gender)

#2 More inclusive for future survey questions

- For future research, we can ask media-related/personal lifestyle questions to get more insights on advertising channels, etc



The word "Thank You" is centered in a large, dark serif font. The letter 'T' is blue, while the rest of the letters are dark grey. To the left of the 'T' are two small blue squares, one above the other. To the right of the 'u' is a vertical white bar with a blue horizontal line at its base. The background is a solid light blue with a faint dotted grid pattern.

Thank You

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Backup Slides

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Part 1 - Design of Questionnaire

Overview of five interviews

Master Student in Tokyo University

Age 25 Male

Bachelor's (CUHK-Chinese Literature)

Of course, **Apple** product!

You may think MBP's **price** is high, but it keeps

high **performance** for at least 5 years!

Student's **warranty**: free for 3 years of applecare!

Outstanding **battery** for whole day courses.

Compatibility: Linkage with other Apple devices.

Great **Portability** and **OS** for security!

How to describe the **design** and performance? It's

Cyberpunk's choice! I also installed Windows in

MacBook! No worry about OS limit!

PhD Student in PKU

Age 24 Male

Bachelor's (PKU-Physics)

Sony the best! (“索尼大法好”)

I love all products of Sony **brand**.

It has great **word of mouth**,

wonderful **design** and considerable **price**.

If one word can be picked to describe we

Sony user, it's “Royalty”!

You say MacBook? No! I want to play

many games and they cannot be

launched in Mac**OS**!



Part 1 - Design of Questionnaire

Overview of five interviews

Manager (Big 4 CPA Shanghai)
Age 34 Male
Bachelor's (Project 211 University-Stats)

I choose Dell-Alienware.
It's expensive for its reputation as luxury in laptops and best CPU & GPU.
I hate MacBook because of the OS limit.
I do not think mainland China has MacBook environment.

Undergraduate Student in one first-tier University in Mainland
Age 18 Female
Major in Animation

I choose Asus because I do not have large budget to afford high price.
I must have comprehensive consideration containing price, performance, warranty, weight...
MacOS? Too many software are needed in my animation major! Unity, Maya, ZB, AE... maybe some have OS limit.

Part 1 - Design of Questionnaire

Overview of five interviews



Analyst (IBD-HK)

Age 30 Female

Bachelor's (HKU-FINA)

Master's (LSE-FINA)

I choose MacBook.

Most of classmates used MBP in university so I tried it. Then I never want to use Windows, but it is needed in working. I love its battery capacity: I can use it for 9 hours in class or watch videos for a long time on bed or sofa without charging it. I think Apple Store has fascinating service. If it has any disadvantage, it could only be its price.

```
Call:
lm(formula = data$overall_apple ~ diff1_price + diff1_brand +
    diff1_per + diff1_por + diff1_desi + diff1_batt + diff1_compati +
    diff1_ser, data = data)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-29.972  -8.482  -0.742   6.425  49.451
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  23.14997    1.84385   12.555 < 2e-16 ***
diff1_price    1.20026    0.29704    4.041 9.13e-05 ***
diff1_brand   -0.48381    0.38591   -1.254 0.21224
diff1_per     0.46109    0.31623    1.458 0.14726
diff1_por     0.79463    0.25316    3.139 0.00211 **
diff1_desi    0.46100    0.31519    1.463 0.14604
diff1_batt    0.08552    0.30345    0.282 0.77854
diff1_compati 0.38577    0.21473    1.797 0.07476 .
diff1_ser     0.92720    0.33549    2.764 0.00656 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Apple

```
Call:
lm(formula = data$overall_apple ~ diff0_price + diff0_brand +
    diff0_per + diff0_por + diff0_desi + diff0_batt + diff0_compati +
    diff0_ser, data = data0)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-63.630  -8.693  -0.905   8.906  44.370
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  18.63035    1.99076    9.358 1e-15 ***
diff0_price    0.76129    0.37006    2.057 0.0420 *
diff0_brand   -0.50467    0.58561   -0.862 0.3906
diff0_per     1.07699    0.54154    1.989 0.0492 *
diff0_por     0.05661    0.61059    0.093 0.9263
diff0_desi    1.10400    0.59835    1.845 0.0677 .
diff0_batt    1.15631    0.48992    2.319 0.0222 *
diff0_compati -0.19383    0.33987   -0.570 0.5696
diff0_ser     0.81512    0.53068    1.536 0.1274
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Overseas-1

```
Call:
lm(formula = data$overall_lenovo ~ diff1_price + diff1_brand +
    diff1_per + diff1_por + diff1_desi + diff1_batt + diff1_compati +
    diff1_ser, data = data)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-29.972  -8.482  -0.742   6.425  49.451
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  23.15000    1.84385   12.555 < 2e-16 ***
diff1_price    0.2003    0.29704    0.674 0.501410
diff1_brand   -1.4838    0.38591   -3.845 0.000189 ***
diff1_per     -0.5389    0.3162    -1.704 0.090774 .
diff1_por     -0.2034    0.2532    -0.811 0.418748
diff1_desi    -0.5390    0.3152    -1.710 0.089676 .
diff1_batt    -0.9145    0.3034   -3.014 0.003113 **
diff1_compati -0.6142    0.2147   -2.861 0.004941 **
diff1_ser     -0.0728    0.3355   -0.217 0.828564
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Lenovo

```
Call:
lm(formula = data$overall_lenovo ~ diff0_price + diff0_brand +
    diff0_per + diff0_por + diff0_desi + diff0_batt + diff0_compati +
    diff0_ser, data = data0)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-63.630  -8.693  -0.905   8.906  44.370
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  18.63035    1.99076    9.358 1e-15 ***
diff0_price   -0.23871    0.37006   -0.645 0.520221
diff0_brand   -1.50467    0.58561   -2.569 0.011501 *
diff0_per     0.07699    0.54154    0.142 0.887209
diff0_por    -0.94339    0.61059   -1.545 0.125159
diff0_desi    0.10400    0.59835    0.174 0.862328
diff0_batt    0.13631    0.48992    0.278 0.781342
diff0_compati -1.19383    0.33987   -3.513 0.000641 ***
diff0_ser    -0.18488    0.53068   -0.348 0.728208
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Overseas-0