CHINESE YOUNG CONSUMERS’ BUYING BEHAVIOR OF ONLINE SECOND-HAND CLOTHING

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Abstract

Recent years have witnessed the increasing popularity of second-hand clothing (SHC) worldwide. In the developed countries, consumers show more willingness to accept SHC and the SHC market is relatively mature. In China, consumers’ attitudes towards SHC is always somewhat negative for many reasons. However, nowadays more Chinese young consumers have intentions to buy SHC partly because they want to follow the global fashion trend or to sustain the environment. To recycle and reuse waste textiles, some regulations have been issued by the Chinese government, but restrictions are still put on trading SHC and it is far from enough to formulate a perfect SHC market. The emergence of online platforms such as Idle Fish and Zhuan Zhuan stimulate the potential market and provide a new channel for trading SHC.

As reducing clothing production and waste is one of the solutions to alleviate environmental burden in China, it is necessary to improve Chinese consumers’ buying behavior of SHC. This investigation is concentrated on Chinese young consumers, to gain an insight of how they think of SHC and what factors will influence their purchase behavior. A mixed method was applied in this investigation, which included the semi-structured interview and the self-completion questionnaire. Respondents are mostly from Shanghai and Shandong province, aged between 18 to 24 years old. Factors affecting Chinese young consumers’ buying behavior were assessed in three dimensions: perceived concerns, perceived values and subjective norm. When analyzing the data, comparisons between genders or districts were made.

It could be observed that three words ‘unsanitary’, ‘cheap’ and ‘eco-friendly’ are used most by Chinese young consumers to express their views on SHC. Among all the factors, hygiene and safety problem is the biggest concern to a majority of Chinese young consumers. Although SHC is not prevailing in China now, it is likely for them to buy it in the future if platforms can be improved and trading SHC can be supported by the government. Since possible ways of improving buying behavior are only given through Chinese young consumers’ perspective, they should be examined from platform operators’ and government’s point of view in the future research.

Keywords: second-hand clothing, Chinese young consumers, online second-hand clothing trading platforms, environment
Acknowledgement

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Appendix
1. Introduction

The reusing of second-hand clothing (SHC) is a new fashion trend all around the world in the 21st century (Gan et al., 2010). Especially in the western world, buying second-hand SHC is a norm and is regarded as a thrilling process to discover something valuable with low price (Weil, 1999). Although there are some concerns over SHC such as contamination and germ (Belk, 1988; Hansen, 2010), and disease transfer from the former owner who might have died (Groffinan, 1971), SHC market is booming and the sale of second-hand clothes is becoming one of the most rapidly developing segments of retail in the west (Narts.org, 2017).

In China, it is common that people are not willing to wear others’ used clothes (Cervellon et al., 2012). As a traditional Chinese saying goes, ‘that old friends are better than new friends are just contrary to that new clothes are better than old clothes’. According to Gan et al. (2010), Chinese consumers are more worried about the hygiene and safety problem of second-hand garments, which is due to the underdeveloped second-hand market mechanism in China.

However lately, there seems to be a trend that Chinese young people have a more positive attitude towards second-hand clothes and want to buy them (He, 2015). From Shen’s (2010) investigation on Chinese young people between 20 to 30 years old in four major cities (Beijing, Shanghai, Guangzhou, Hangzhou), more than 60% of the respondents are interested in second-hand clothes.

Xu, the founder of an SHC recycling website, expressed his hope to see second-hand clothes being traded on the market because they are still valuable in their life cycle (Qdaily.com, 2016).

1.1. Background

1.1.1. The development of SHC

SHC has developed over three noticeable periods, the emergence and expansion in the 18th and 19th centuries, the decline in the 20th century and the resurgence after the 2000s (Weinstein, 2014). The consumption of second-hand clothes has changed rapidly as a result of a large number of marketplace shifts (Guiot and Roux, 2010). Second-hand clothing provides a new form of value for consumers to adapt to the economic downturn (Tuttle, 2014), and it is becoming more and more fashionable (Beard, 2008).

During World War I, when clothing is mostly mended or tailored, the concept of vintage clothing emerged as a branch of second-hand clothing (Claudio, 2007). Consumers’ interest in vintage did not see a significant increase until the early 1990s. After that, vintage is becoming increasingly popular in Western cultures and developing countries.
Although in China, where customers do not like wearing other people’s clothing, they have embraced the rise of special stores selling vintage pieces, such as Mega Mega Vintage in Beijing (Cervellon et al., 2012). Due to a small group of customers’ obsessions with vintage pieces, some second-hand clothes shops have changed their shops’ name to ‘vintage’ (Newgeography.com, 2010).

1.1.2. Environmental problem and sustainability

Throwing away garments instead of delivering them to the market is a huge waste of resources, which does great harm to the environment according to Adam Baruchowitz, who is the founder of Wearable Collections in New York City (Tan, 2016). The detrimental impact of second-hand clothes on the environment is not only from manufacturing these clothes, which consume a lot of energy and release greenhouse gases, especially CO₂, but also from the incineration of disposed clothes (Bjurbäck, 2015).

China is suffering from industrial water pollution and poor air quality partly because of the rapid development of clothing industry (Zhang et al., 2010). To be more specific, 65% of the world’s clothing is manufactured in China (Chinawaterrisk.org, 2011), which has caused heavy energy use and clothing industrial waste (Zhang et al., 2010).

With the rise of fast fashion (a term used to describe that designs shift from the catwalk to stores quickly to follow fashion trends) and the improvement of material life, people buy clothes more frequently. This results in an increasing number of used clothes. Not all these second-hand clothes can be sent to charities, only those which can keep people warm, such as jackets and overcoats, are needed. Consequently, the environmental burden is added due to massive second-hand clothes in the landfill. Since around 90% of clothes, that are made up of blended fabric, cannot be separated directly, both dumping or burning them will release the toxic material within, thus worsening the environment (Zhang, 2013).

Weil (1999) noted that the recycling of used clothing has a significant influence on the environmental protection, which increases the life of the clothes, reduces waste and cuts the environmental cost of making new clothes.

1.1.3. Regulations on SHC in China

In China, it is forbidden to import second-hand clothes (Mofcom.gov.cn, 2002). From a website called Qdaily (2016), offline SHC trade in China is also banned, but it needs to be further verified because official documents have not been found. Moreover, old clothes are still not among the prescribed “renewable resources” in the latest Chinese official policy of the administration of renewable resources (Mofcom.gov.cn, 2007).

Also, China has not established a classification and recycling system for SHC, recycling channels for waste textiles are very limited and there is a lack of specialized recycling
agencies (Chen et al., 2013). The regulation situation in China is not so favorable for the trade of SHC.

Fortunately, at the 15th Shanghai International Textile Industry Exhibition, recycling all used and waste textiles, which includes used clothes, was first supported and included in the Twelfth Five-Year Plan for China’s Textile Industry from 2011 to 2015 (Li, 2011). In the Thirteenth Five-Year Plan, how to reuse waste textiles has also received constant attention (Miit.gov.cn, 2017).

1.1.4. Chinese young consumers’ consumption characteristics

The respondents we choose in this investigation are university students in China, whose ages range from 18 to 24 years old. As a new consumer group in modern society, their consumption characteristics tend to be healthy, youthful, personalized and intelligent according to China Consumption Trends Report 2015. Compared to other consumer groups, personalized consumption is prominent among young consumers, which means they are more likely to buy niche items. Another report “Consumption Behavior and Brand Recognition of College Students in 2015” shows that online shopping has become one of the major channels for young people to purchase (Li et al., 2017).

Moreover, young people aged between 18 and 24 are main purchasers and have strong spending power. They account for 40% of the total share of the users in for instance Taobao (a very popular e-commerce trading platform in China). Although they do not have the independent economic capability, they are keen on following fashion trends. This leads to both conformity and competitive mentality among them, such as showing off to others (ibid.).

In terms of the idea of green consumption, Chinese young consumers are concerned about environmental protection and regard buying second-hand clothes as a way that can do good to the environment (Xu et al., 2014). However, their green consumption behavior lags behind green consumption consciousness (He, 2015).

1.2. Research problem

From the background above, it shows that SHC is a rising category in the clothing market of western countries. We believe that it will be a growing trend in China as well, as young peoples’ willingness towards buying second-hand clothes and environmental awareness is stronger than previous generations. Also, attention will be paid to the disposal of waste textiles, which can be seen in the latest government plans and regulations.

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1 Chinese young consumers: In this thesis they refer to Chinese university students.
Nevertheless, how to stimulate the development of this industry and make SHC common in China is really a tough task. For us, what we can do is to investigate the possible solutions from Chinese young consumers’ point of view.

Of all the articles we read about SHC, some of them discuss young people’s conception and attitudes towards the buying of second-hand clothes, as well as compare the purchase behavior between countries. Others analyze the situation of SHC trade in China, providing some strategies to reuse and recycle these clothes from the view of policy and the operation of recycling companies. However, just a few articles concentrated on young consumers’ perspective of how they could buy more second-hand clothes. Thus, we mainly focus on this aspect in this investigation.

**1.3. Research questions and purpose**

This investigation chooses Chinese young consumers (actually most of them are university students from Shanghai and Shandong province) as our objects, not merely because they have a higher tendency to buy used clothes, but because they represent consumers of the future market. In the results of the survey by Deng et al. (2017), less than 17% of the students who were interviewed had the experience of buying second-hand clothing. Our aim is to find reasons behind the low purchase rate of SHC in China, which might be related to subjective factors like attitudes and objective factors like regulations, etc.

Meanwhile, we will only focus on online second-hand trade including its platforms, as physical stores are seemed not to be allowed to sell used clothes as stated above, and it is indeed the case in the authors’ experience. Besides, online trading is now the main shopping way for Chinese young consumer. Hence, unilateral suggestions to enhance young consumers’ buying behavior are also provided, which may be helpful to operators of online second-hand trading platforms. Although some articles have mentioned young consumers’ attitudes towards SHC and factors affecting their buying behavior, it is still meaningful to do such an investigation since people change their mind over the years.

To reach our purpose, we will look into three questions from shallow to deep. They are as follows:

1. What are Chinese young people’s attitudes towards buying SHC?
2. What factors affect Chinese young people’s buying behavior of online SHC?
3. How could Chinese young people’s buying behavior of online SHC be increased from their perspective?
2. Literature review

2.1. Definition of second-hand and vintage clothes

In general, SHC is identified as those clothes which have been owned or worn by other people in the past with no regard to the ages (Attireclub.org, 2017), has a meaning of ‘used’ (Bank & Vogue, 2017). On the other hand, vintage is a subcategory of SHC (Attireclub.org, 2017), especially referring to clothes produced between the 1920s and the 1980s. They can be bought at boutiques, exhibitions or auctions, and the price is much higher than ordinary used clothes. Some of them probably have never been worn or have only been tried once on the catwalk (Cervellon et al., 2012).

In this paper, we only discuss SHC in a general meaning, not including vintage. Because in China, vintage market is premature and only a few consumers know about it. Besides, the amount of vintage clothes accounts for only a small part of the SHC market.

2.2. Online marketing

Online marketing has blazed another trail for trading goods. It is a modern marketing means based on Internet technologies and functions to meet consumers’ demands (Sun et al., 2006). Compared with traditional marketing, online marketing has many different characteristics. High efficiency and economy are two of them, which means that online marketing is time-saving and cost-saving for both consumers and enterprises. Another one is personalization. Enterprises put consumers at the center, providing personalized commodities and services by collecting data about their preferences and demands. What is more, globalization and interactivity are two other characteristics, representing that online transactions have no restrictions on time and space, and communications between enterprises and consumers could be more (ibid.).

Starting from the middle 1990s, online marketing developed rapidly around the world and revealed its potential (ibid.). The statistic from CTV Television (2014) shows that the number of Chinese Internet users (about 632 million) is larger than any other countries, and the scale of ecommerce market in China will keep growing if more people have access to mobile phone shopping.

2.3. The SHC industry

2.3.1. The global situation

SHC market

According to Baden and Barber (2005), there has been a ten-fold increase in the trade of SHC since the 1990s to probably 2004 (the article does not say but it was published
in 2005), accounting at that time for less than 0.5% of the total global trade value in clothing. Almost all the countries around the world have taken part in SHC trade.

The SHC market in Europe and North America has become relatively mature. There are some successfully operated SHC trade e-commerce platforms, for example, Tradesy, Vinted and Twice. People from these areas have more accepting attitudes towards used clothes than the Chinese, which made these companies survive, while the Chinese attitude is a serious problem for Chinese companies who want to enter the SHC market (Qdaily.com, 2016).

Existing measures to deal with second-hand clothes

Based on statistics launched by Chinese Textile Research Center, 1.9 million tons of used textiles and clothing are discarded in Germany every year, of which approximately 42% are recycled and reused. The United States annually disposes 11.1 million tons of textiles and clothing, and approximately 1.1 million tons of textiles and clothing are recycled each year. More than half of them are donated to charities as SHC, and about 0.2 million tons of used textile clothing is reused (News.feijiu.net, 2015).

There are four types of processing and reusing second-hand clothes in developed countries, one of them is sending them to a specialized recycling company (He, 2015). In Japan, second-hand clothes must experience a strict procedure before showing up in stores, which means they will be cleaned and sanitized. Damaged and soiled items will be discarded (Qdaily.com, 2016). Another example is H&M, a Swedish fast fashion brand, who has launched a global recycling program since 2013. They encourage customers to pack up their unwanted clothes and send them to the store for recycling by giving 25% off coupons. Then they turn over collected second-hand clothes to a Swedish recycling company called I:CO, which recycles 95% of those clothes to direct reuse and the rest will be proceeded into new products by upgrading the material (He, 2015).

2.3.2. The situation in China

The current situation of the second-hand market

Estimated by China Association of Circular Economy (CACE), China has produced 20.7 million tons of waste textiles in 2013, with only 3 million tons of that being recycled and reused (Recycled Textiles Council, n.d.). As mentioned before, a large number of waste textiles has been produced in China and only a few have been recycled. Take Shanghai as an example, there is around 20000 tons household garbage generated every day, and used clothes make up 2.6% of the total amount, which means that 500 tons (1.5 million pieces equivalently) clothes have been thrown away (Qdaily.com, 2016).

The fact that the large amount of second-hand clothes being discarded hints the enormous potential of the SHC market in China (Xu et al., 2014). Extrapolation from
the “China’s Sharing Economic Development Report 2016” indicates that the potential idle (here means the clothes people keep but do not use) second-hand market in China was about 400 billion yuan (equivalent to 51 billion euro), which is on a much larger scale than, for instance, the current prevailing market for sharing transportation (a term to describe a new mode of transportation which vehicles are shared with others and the cost is shared as well) of only 150 million yuan (equivalent to 19 billion euro) (Yicai.com, 2016). Furthermore, over 98% people have idle clothes according to data published by Idle Fish, an integrated second-hand trading C2C platform of Alibaba, selling different kinds of commodities including clothes (Chinaz.com, 2016).

The existing problems and limitations of SHC market in China

It seems that there is a huge market for SHC in China. However, apart from the attitude of consumers themselves, because of untapped habits of users, under-exploitation of the market, and the inability to establish clear trading rules and commodity evaluation standards between buyers and sellers, the SHC market is lukewarm. Another main reason why consumers are reluctant to buy second-hand clothes is that the follow-up logistics and after-sales services cannot be guaranteed due to the lack of trust on both parties to the transaction (Chinaz.com, 2016).

Second-hand Trading Platforms in China

China’s second-hand clothing trading platforms have been struggling. Liang Yi Hui, for example, is a new platform of second-hand fashion trading. This platform focuses on the recycling of fast fashion brands. It has sold more than 20,000 pieces of old clothes in 2015. However, it was not profitable. Then this platform was transformed into selling light luxury brands in 2016 after a year of difficult operation. Unfortunately, the platform has still bankrupted now. Moreover, other companies that trade second-hand clothing in China have also failed, for example, Amoy side, Leisure, Private Goods, Small Transactions and so on. In China, consumers worry that the clothes they buy are not of good quality, even if they are new items purchased on Taobao. The trade in second-hand clothes has faced a complicated situation. On other platforms such as Idle Fish, few sellers mention the cleanliness of second-hand clothes they are selling, and the platform itself does not have specific regulations. On behalf of what is said here, the proportion of second-hand clothes sold in China is actually small (Qdaily.com, 2016). There are two main online SHC trading platforms in China now, one is Idle Fish mentioned above, the other is Zhuan Zhuan.

Idle Fish was established in June 2014. The platform has accumulated over 100 million users and the number of idle goods traded reached 170 million pieces in a year. From the number of users, we can see that it is the largest online trading platform for second-hand goods in China. In terms of the age distribution of active users, young people under the age of 30 account for nearly 70% of idle fish users, and students have higher willingness of buying second-hand items. Basic functions of Idle Fish include commodity releasing, one-click reselling, commodity classifying, commodity keywords browsing, commodity collecting, users’ interaction, commodity purchasing, etc. (Chen and Liu, 2015).
### Table 1  Detailed information of Idle Fish

<table>
<thead>
<tr>
<th>Owner</th>
<th>Alibaba</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected platforms</td>
<td>Taobao, Alipay</td>
</tr>
<tr>
<td>Logistics transportation</td>
<td>CaiNiaoGuoGuo (Allowing call online)</td>
</tr>
</tbody>
</table>
| Credit certification | Taobao membership level  
Alipay real-name authentication |
| Operational convenience | Reselling by Taobao, release quickly and conveniently |
| Displaying methods of information | Text, pictures, videos |

Zhuan Zhuan is a second-hand online trading platform of 58 Market Group, which was launched in mid-November 2015. As opposed to the stranger transactions on the general second-hand websites, Zhuan Zhuan established cooperation with WeChat, which is a Chinese social media app, and the login entrance is only open via WeChat (Hu, 2015).

### Table 2  Detailed information of Zhuan Zhuan

<table>
<thead>
<tr>
<th>Owner</th>
<th>58 Market Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected platforms</td>
<td>WeChat</td>
</tr>
<tr>
<td>Logistics transportation</td>
<td>58 Quick shipment</td>
</tr>
</tbody>
</table>
| Credit certification | The identity authentication  
Enterprise certification  
School certification |
| Operational convenience | The interface is simple and it is easy to find items |
| Displaying methods of information | Text, pictures |

**SHC Recycling and Processing Enterprises**

Yuan Yuan Company is a special recycling enterprise designated by the Shanghai Government. It is mainly engaged in the classification, sorting and comprehensive utilization of discarded clothing. According to Yuan Yuan, clothing recycling is divided into ‘reuse’ and ‘regeneration’. ‘Reuse’ includes donations and circulation in the secondary market, while ‘regeneration’ is resource reprocessing. Most of the SHC is used as the resource to be processed. Some used clothes with the best quality are donated, and better ones are sold to buying companies in Africa and South America at a price of $1,000 per ton. Such donated clothes account for 10% of SHC. The remaining clothes, after special equipment processing, are made into new clothes or car interiors, insulation materials, furniture, construction materials, etc. The company has to afford the costs of mailing, cleaning and so on, which means that the profit is nearly none (Qdaily.com, 2016).
2.4. Previous research on SHC consumption

2.4.1. Factors that affect consumers buying SHC

With the growth of SHC consumption, there are some factors affecting consumer’s behavior regarding SHC. In a study by Xu et al. (2014), they have a framework which is developed based on Fishbein and Ajzen’s (1975) theory, concluding three aspects influencing consumers’ purchasing behavior of SHC. They are perceived values, perceived concerns, and subjective norm.

Perceived values can be divided into four parts: economic value, environment value, hedonic value, and uniqueness. For economic value, bargain pricing is the main reason for people who are frugal to buy SHC (Xu et al., 2014; Roux and Guiot, 2008). For environment value, it refers that people pay attention to environmental protection through the purchase of SHC, which reduces the number of new clothes produced (Reiley and Delong, 2011). Regarding hedonic value, it means that the purchase of second-hand clothes can bring pleasure when buying some valuable clothes at low cost (Weil, 1999). Uniqueness denotes that the unique quality of SHC has drawn consumers’ more attention. Special styles and colors also attract people to buy SHC (Palmer, 2005).

Speaking of perceived concerns, one concern about used clothes is the hygiene safety problem such as contamination and germs, disease transfer, etc. (Groffinan, 1971), which has been referred to before. The other is that the imagination or reality of body markings (e.g. perspiration stains or odor) on second-hand clothes gives people a feeling of trespassing on others’ territory, thus a taboo opposed to such garments is caused (Roux and Korchia, 2006). Rozin et al. (2000) claim that people often feel disgusted when connected to someone else’s possessions.

Subjective norm is another factor that decides consumer’s behavior, except their belief-based attitudes as shown in the theory of reasoned action (Fishbein and Ajzen, 1975). People build up this cognition both from peers, family and mass media, which can be called significant references (Moschis and Churchill, 1978).

From their research, the three most significant influencing factors why Chinese did not buy SHC are subjective norms, economic value and hedonic value in the sequence. In comparison with American consumers, Chinese consumers did not care much about economic value as the price of new clothes was not that higher than SHC in Chinese apparel market. For the same reason, they perceived a lower level of hedonic value to SHC compared with new clothes. In contrast, Chinese consumers’ environmental value is high, which may be due to concerns about serious air pollution in China. Chinese consumers also own a high level of negative concerns over consuming SHC, which shows that the proportion of Chinese consumers who are willing to accept to buy and wear second-hand clothing is small. Chinese consumers pay attention to public image, and they are not willing to lose their face by being believed that they have no money to
buy new clothes. This is connected to their psychological and social perspectives. Moreover, Chinese consumers perceived a low level of subjective norm since buying SHC was not so popular (Xu et al., 2014).

Figure 1 A framework of factors that affect purchase behavior from Xu et al. (2014)

### 2.4.2. Purchase intention and influence of the Post-90s in China

In a comparison with the older generations, the Post-90s held a weaker resistance to SHC and perceived the highest level of hedonic values and uniqueness, such as buying vintage clothing (Liang and Xu, 2017). Their purchase intentions and behaviors are relatively higher too, but their environmental value is not so high as expected. As the Post-90s still need financial support from their parents, economic value is more important to them. Meanwhile, the Post-90s together with other generations shared the same concerns over hygiene problems, associated financial status inferiority and/or emotional discomfort (ibid.).

### 2.5. Summary of literature review

In this chapter, we first define the meaning of second-hand clothes and tell the difference from vintage clothing, then introduce the SHC industry both around the world and in China. It includes the situation of SHC trade market, ways of reusing and recycling second-hand clothes and consumers’ perception and actual purchases. Finally, we further discuss the factors behind the phenomenon of why Chinese consumers are not interested in buying second-hand clothes, and how the Post-90s perceive these factors.
3. Methodology

3.1. Research strategy

Quantitative research and qualitative research are methods both for analyzing data. Quantitative research is a strategy that puts emphasis on examining the relationship among variables by taking statistic procedures, so that objective theories can be tested. On the other hand, qualitative research focuses on understanding the meaning that individuals or groups interpret on a certain problem (Creswell, 2009). In this investigation, mixed methods were applied, which have the advantage to strengthen the overall research (ibid.). The relation between them is that qualitative research facilitates quantitative research.

The purpose of this research is to find out possible improvements of Chinese young consumers’ buying behavior of second-hand clothes, which means we have to collect their general attitudes and reasons why they buy or not. But before that, a qualitative research should be conducted first to get more detailed information and extract some important categories. For that, we chose a semi-structured interview, which is based on several prepared questions on specific topics and a few improvisational questions (Bryman and Bell, 2011). It will provide us with a deeper understanding of Chinese young consumer’s attitudes and their future purchase intentions towards used clothing, also concerns over online SHC industry from our respondents’ answers. All of these can be transformed into entry points of future improvements.

After collecting data from each respondent through interviews, an evaluation was made. It has to be testified by more people because we want to see if the result is general. Quantitative research strategy is a deductive way to test the theory and gives more abundant statistics (ibid.). Here a self-completion questionnaire is a good choice to obtain a large number of data from various respondents. According to Bryman and Bell (2011), a self-completion questionnaire is both cheap and quick. Moreover, it is very convenient for respondents to complete. In addition, the self-completion questionnaire was distributed online, as online survey is rapidly developed and has advantages such as low cost, high efficiency, etc. Younger people access the internet more frequently (Sue and Ritter, 2015).

The combination of qualitative research and quantitative research can help us to acquire empirical and statistical data, which will more comprehensively show consumers’ attitudes towards buying second-hand clothes and the factors that may influence their buying behavior. Then it is easier for us to further find feasible ways which may be helpful to conquer the existing problems and make some improvements.
3.2. Research process

Our investigation was launched in two districts in China, Shanghai and Shandong province respectively. Shanghai is usually called the fashion capital of China, which means Shanghai leads the fashion trends in China. If buying SHC is or will become a trend in Shanghai, then it is possible to spread all over the country including Shandong province. Compared to Shanghai, Shandong province is a less developed district. Young consumers’ attitudes towards SHC and the industry situation may differ between the two districts. Besides, one of the authors is from Shanghai and the other is from Shandong province, respondents from both districts are much easier to get access to. Hence, choosing these two districts to collect and analyze data will make our results more general.

Mixed methods were used in this investigation. The semi-structured interview came first, and interviewees were selected by convenience sampling. The self-completion questionnaire was designed based on the results of the interviews and then distributed by snowball sampling.

3.2.1. Semi-structured interview

The interview was conducted from January 28 to January 30. Convenience sampling was used for choosing respondents. This kind of sampling method is one of the most widely used, which allows the closest and the most convenient persons that investigators access to be respondents, then continuing the process until reaching the sample size (Robson, 2009). It is time-saving and cheap. However, the findings are not to be that representative and credible (Miles and Huberman, 1994). As our respondents are university students in Shanghai and Shandong Province and it is hard to be exposed to all the students, this method is suitable for the investigators to decide the sample size and select from near friends and classmates. At first, 6 persons were planned to get in touch with. At the end of the interview stage, 2 more persons showed their interest in our investigation subject and offered to be interviewed. This might reflect that SHC is a hot topic and has research value to some extent among Chinese young consumers.

The interview guide was constructed based on the materials collected in the literature review (Chapter 2), and the questions were divided into main questions and follow-up questions. They mainly focused on SHC purchase behavior, the current status of SHC trading platforms and suggestions of improvements to the trading platforms. The questions were designed as open-ended questions, which enable interviewees to answer freely and deeply. To saturate categories for subsequent analysis, a pre-interview with one respondent was done before the interviews with the chosen subjects. Some questions were adjusted and added by comparing the responses from the pre-interview with the purposes we wanted to achieve with these questions. Thus, the answers from the interview part we got were more comprehensive.
For the interview context, there are several ways other than the traditional one of standing or sitting in front of the interviewee (Bryman and Bell, 2011). Three respondents from Shanghai and Shandong province were accessible for face-to-face interviews. The other five participants were interviewed by telephone on WeChat. Two authors were involved in all the interviews, asking questions one after the other and taking notes together. A voice recording software on iPhone 7 recorded all the interviews.

To provide interviewees with relaxed conversation atmosphere and encourage them to express their views without any difficulties, interviews were all conducted in Chinese and also transcribed in Chinese. Then they were carefully translated into English. Each interview lasted for 20 to 40 minutes, and time needed for transcribing was about 60 minutes per interview. The notes taken down during the interviews worked as guides for interviewers to ask follow-up questions and were also used as a reference for summarizing the points after the interview. All materials gathered from the interviews were very helpful for us to reach a deeper understanding about how Chinese young people think of SHC and its trading platforms, and also provided a basis for designing questions in the questionnaire.

3.2.2. Self-completion questionnaire

The questionnaire was generated and published on Sojump, an online questionnaire platform in China. Since there are several external links on this platform, meaning the questionnaire can be sent out to other social networks, it was distributed from February 13 to February 22 via WeChat. For this part, the sampling method was snowball sampling. Atkinson & Flint (2001) defined snowball sampling as a sampling technique with high effectivity, which is very useful to the study that respondents are hard to get. Noy (2008) noted that the sampling process is a repetitive one: the researcher got in touch with some informants first, and then the former informants recommend others, etc. At first, investigators contacted some friends on WeChat, and more others who are from Shanghai or Shandong province and aged between 18-24 were later introduced by these friends.

The structure of the questionnaire was composed of 11 closed questions and 1 open question. Types of closed questions included one choice, multiple choice, scale, and sequencing. Because our main target group is young Chinese from Shandong province and Shanghai, and 220 questionnaires were planned to distribute, the number of respondents from either district should be balanced to around 100 which seems to be more comparable. The number of respondents from Shandong reached at 105 first, but the questionnaire did not stop until the number of respondents from Shanghai was up to 97.

As to the content of the questionnaire, the basic information about respondents of gender, age and district were asked in the first three questions. Other questions were
designed based on the research purpose. Question 4 ‘What is your first impression of SHC’ and Question 9 ‘What is the possibility that you will buy online SHC in the future’ were designed to get a knowledge of how young Chinese think of buying SHC and their future purchase intentions. Question 9 ‘Suppose you want to buy SHC from a second-hand trading platform online, please choose 4 alternatives and rank them from the following purchase factors’ was trying to find out main factors influencing young Chinese’ purchasing behavior. Question 11 and Question 10 were both asked directly about the probable improvements that can be made on trading SHC.

A pre-test was conducted before the distribution of questionnaires. The way of asking and the setting of options have been improved according to suggestions provided by pre-testers.

3.3. Ethics

In order to preserve the integrity of the research and disciplines involved, ethics issues should be taken into consideration (Bryman and Bell, 2011). There are four ethical principles proposed by Diener and Crandall (1978), which are participants, informed consent, privacy, and deception respectively. Before each interview and questionnaire, a brief introduction to our investigation content and aim were given to the respondents, asking for permission. Interviews were recorded with his or her consent as well. The respondents’ surnames were used in the analysis of interview after their permission, but respondents participated in questionnaires were anonymous throughout the survey.

3.4. Data analysis

3.4.1. Data from semi-structured interview

Creswell (1998) introduces the data analysis spiral including six procedures as a general qualitative data analysis strategy. The six procedures are data collection, data managing, data reading and memoing, data describing, classifying and interpreting, data representing and visualizing, and account. The intermediate four steps can be repeated. His spiral was used as a guide when analyzing interview data step by step. Data was collected from the interviews first, which was in the form of recording and some simple notes. Recordings were later converted to transcripts in detail. Then the investigators read through the whole transcripts and wrote down key concepts in the margins. Combining these concepts with notes taken down during interviews, initial categories were formed (in our case about 7) and listed in a logical order. Thirdly, three general themes were classified through summarizing the previous categories. Under each general theme, several subthemes were involved like a family tree. Finally, comparisons of empirical data among all interviews were made when presenting their views. Although there were 8 interviewees, everyone’s opinion on the same question was greatly different.
3.4.2. Data from self-completion questionnaire

As to the questionnaire, data was imported from Sojump to both Excel and SPSS to further analyze results and to investigate correlations between variables. After collecting all the questionnaires, a screening process was conducted first to ensure the validity of the responding questionnaires. For each question, a univariate analysis was applied. In order to present the results of different questions clearly, some were shown in the form of diagrams like bar charts, others just through the frequency tables. In analyzing two of the questions, bivariate analyses were done through cross-tabulations with gender and districts respectively. In some of the tables and diagrams, numerical values were assigned to the optional answers of the questions.

3.5. Credibility

There are four criteria for judging the soundness of qualitative research suggested by Guba and Lincoln (1994). They are credibility, transferability, dependability, and confirmability, which are equivalent to the criteria in quantitative research (internal validity, external validity, reliability and objectivity respectively). In analyzing the results from interviews, almost all the answers were covered and thick descriptions were used, which provided detailed interpretation about respondents’ different or even contradictory views on buying SHC. Moreover, notes were taken down by both investigators during interviews and were cross-checked not only between the two investigators but also according to the recordings afterward. These were done to enhance the credibility and confirmability of the interviews. In order to strengthen the internal validity and reliability of the questionnaires, questions were designed based on the research aims, the relevant literature, and answers from interviewees. They were listed in logical order and optional choices of some questions were aligned with others, so the questionnaires of inconsistent answers could be eliminated easily.

3.6. Limitations

As two sampling methods used in this investigation are both non-probability sampling, it is hard to well represent the whole Chinese young consumers population. For convenience sampling, samples might not be accidental as they were chosen by investigators (Robson, 2009). For snowball sampling, samples are not random because the sampling frame for the population is unknown (Bryman and Bell, 2011).

Since most of the investigators’ friends are female, more female respondents participated in questionnaires than male respondents. It decreases the representativeness of both genders. Besides, the survey results for respondents from Shanghai and Shandong province may be considered as an indication of domestic results. But strictly speaking, the overall geographical generalization of Chinese young consumers still lacks.
4. Results and analysis

The following chapter analyzed the results of the semi-structured interview and self-completion questionnaire in conjunction with the previous literature separately.

4.1. Interview results and analysis

There were 8 respondents participated in the interview part. If divided by regions, 3 are from Shandong Province and 5 are from Shanghai. If divided by gender, only 2 are males and 5 are females. Basic information of the respondents is listed in order of interview date in the following table. Their surnames are agreed to use.

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Gender</th>
<th>From</th>
<th>Interview date</th>
<th>The setting of the interview</th>
<th>Experience of trading SHC online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Di</td>
<td>21</td>
<td>Female</td>
<td>Shanghai</td>
<td>2018-01-28</td>
<td>Via WeChat call</td>
<td>She has experience of selling second-hand clothes online</td>
</tr>
<tr>
<td>Luo</td>
<td>22</td>
<td>Female</td>
<td>Shandong</td>
<td>2018-01-28</td>
<td>Via WeChat call</td>
<td>No experience</td>
</tr>
<tr>
<td>Ji</td>
<td>23</td>
<td>Male</td>
<td>Shandong</td>
<td>2018-01-28</td>
<td>Face-to-face</td>
<td>No experience</td>
</tr>
<tr>
<td>Gu</td>
<td>22</td>
<td>Female</td>
<td>Shandong</td>
<td>2018-01-29</td>
<td>Via WeChat call</td>
<td>No experience</td>
</tr>
<tr>
<td>Hu</td>
<td>21</td>
<td>Male</td>
<td>Shanghai</td>
<td>2018-01-29</td>
<td>Via WeChat call</td>
<td>He has no experience in second-hand trading but he owns a clothing e-shop on Taobao</td>
</tr>
</tbody>
</table>
As mentioned in the data analysis, the analysis and results of the interviews are categorized into three main themes. They are:

- The cognition of buying SHC online
- The online consumption of SHC
- Future development of buying SHC online

### 4.1.1. The cognition of buying SHC online

**Knowledge about buying SHC**

When talking about the first impression of buying SHC, 7 out of 8 respondents regard it as an eco-friendly lifestyle because they think resources can be recycled and reused in this way. It is something worth advocating. Luo explains that there are some elements in clothing which cannot be decomposed, so littering garments will be harmful to the environment. Ji believes that SHC tends to develop due to sustainability. He adds that buying such clothing saves a lot of costs on labor and resources compared to producing new clothes. Hao agrees on that and she thinks it also saves money for the buyer.

Gu feels that though she does not reject SHC, however, many young people who pursue their own personalities and fashion trends are less likely to buy it. Hu admits that the existence of SHC is valuable since it is in demand, but it is hard to scale it up. He does not think anyone around him would buy SHC. Di and Cheng show their willingness to sell their own SHC instead of buying, but Cheng prefers to send SHC to charities that are not rewarding.

**Buying patterns of SHC**

All respondents express that they do not know SHC stores but only have heard about an integrated online platform called Idle Fish to varying degrees. Therefore, the rest of the analysis is mostly about this platform. Advantages and disadvantages have been mentioned in their description to the platform. One prominent advantage is free trading just between buyers and sellers according to Hu. Ji explains that both release and response time are fast because stuff can be sold just after uploading photos and
completing the description. Gu thinks that the price on that platform is more reasonable without the involvement of the third party.

Also due to free trading, three respondents (Di, Gu and Ji) state that there are certain trading risks, for instance, the seller’s credibility is in question and he is probably a fraud. Hu considers that it is impossible to know whether the clothing quality information provided by the seller is true or not, so information asymmetry exists. Luo feels that commodities displayed on the platform are in disorder.

4.1.2. The online consumption of SHC

Previous buying behavior

All our respondents do not have the experience of buying SHC online. Gu is the only one who has once worn SHC that was left by her sisters but not bought from stores. When asking about the reasons why they did not buy SHC, nine factors were mentioned. Six respondents show deep concern about the hygiene safety problem, except Ji and Xu. Hu and Hao express that they cannot tell if SHC is sanitary, especially close-fitting clothing. Other two respondents (Luo and Gu) worry about if the previous owner carries infectious disease. Di took an example that dead clothes were smuggled from other countries once a time, so she cared much about the origin of clothes. Xu, on the other hand, believes that sellers can take care of hygiene problem if clothes are only worn by herself/himself.

The quality of clothing is the second most common concern referred to by Di, Xu and Cheng. They further state that seller’s description of the garments may be not in line with reality. The lacking conception of buying SHC has also been mentioned by three respondents (Ji, Hao and Cheng). They feel unfamiliar with SHC and distrust it as well. Hu and Di think that new clothes are not so expensive which can be afforded.

Hu: Buying a new cloth just costs a few hundred RMB. I am not the kind of person who buys a lot of clothes, and I would rather buy a new cloth instead of buying two second-hand ones. Young people around me with spending power will not purchase SHC as far as I know.

Hu and Di are both from Shanghai, maybe their consumption level is higher than young people from other districts. Hao feels that wearing SHC can cause psychological discomfort. Hu has the same feeling. They also agree on the low service life of SHC. Hu expresses his hope that each piece of clothing can last until the end of its life. Other reasons are mentioned as well, for instance, environmental issues are not often considered when buying SHC, the color of SHC is not as good as of a new one, platform management lacks standardization, etc.

From the literature review and the investigators’ practical experience, some young people in China have never bought SHC online. A question about why others buy SHC
online was asked straight after. There are three reasons being mentioned. Six respondents believe that they buy SHC mainly because it is cheap, which is consistent with that low price is the main reason for buying SHC according to Xu et al. (2014).

_ Di: It is cheaper to buy someone else’s cloth that has only been worn once, or the clothing label is still there just like new one. If that piece is what you really want, then you are fortunate._

Hu explains that there are two situations when young people choose to buy SHC for the low price. One is that some of them want to buy designer clothes but cannot afford the new piece, then SHC is a good choice. The other is that they are indeed in a poor financial condition. However, Ji thinks that fewer young people will care about price because the living standard in China is getting better and better. Ji, Gu, Hu and Hao link environment protection as another purchase reason, which can reduce the waste of resources. Another possible reason is collectible value from Xu and Cheng’s perspective. Some clothes that are out of print or with limited edition are worth buying.

**Future purchase intention**

There are three different attitudes towards the possibility of buying SHC in the future. More than half of the respondents believe that they are less likely to buy it, unless the clothes are what they really want and new ones are not available, or with collectible value such as those worn by pop stars, or still in good condition. Cheng even sets more prerequisites on buying SHC.

_Cheng: I will probably buy SHC because this behavior is eco-friendly. But the hygiene problem is the important point that cannot be ignored. Second-hand clothes are best to be sterilized. I hope that there is an effective monitoring mechanism on SHC in the future. To be more specific, the regulatory role should be played by the government through issuing the corresponding regulations and penalties. Meanwhile, it is the government’s job to decide what is a qualified commodity._

Gu agrees on that and she adds the price of SHC should be much lower like 50% off. Actually, the true reason behind this attitude is that most young Chinese do not have the willingness and habitus to purchase SHC according to Xu. Comparing to SHC e-shops, she tends to go shopping in an offline thrift store and hopes such stores will open soon in China.

Then there are two extreme attitudes on this topic. Luo and Hao share the same idea that it is entirely possible for them to purchase SHC online. For Luo, the low price is her biggest motivation. She believes that some ninety percent new or completely new clothes with good quality can be found through carefully filtering. This kind of SHC is cost-effective. Hao points out that she will not only buy SHC but also sell her own pieces. She has seen mutual benefit in this trading. Ji, on the other hand, states that he
will not accept SHC for now. If one day everyone goes to buy it, he will follow the
trend. This shows that subjective norm is the main factor in Ji’s buying behavior.

4.1.3. Future development of online SHC platforms

Ways of improving existing platforms

Since it is possible for most of our respondents to buy SHC online, a question about
how platforms (Idle Fish was mainly focused) could be improved to promote the buying
behavior of young Chinese was asked. Five suggestions were given. Half of the
respondents put forward that the platform should start with the identification of the
source and quality of SHC, thus enhancing its reputation and consumers’ trust. Luo adds
that sorting clothes according to their status through a detection system is also needed.
But that is hard for the platform to do so in Xu’s and Cheng’s opinion.

Cheng: Although it is a good idea to have such monitoring activities, there are
many difficulties. Due to the information asymmetry between buyers and
sellers, the platform supervisor may choose to leave it alone. As far as the
market is concerned in this part, SHC detection has been tacitly ignored.
Furthermore, most of those who choose to buy on Idle Fish do not care much
about it.

Ji, Hao and Xu mention that seller’s credit problems need to be noticed. For instance,
the authenticity of the clothing information uploaded by the buyer should be regulated
by the platform. Ji explains that it happens sometimes the commodity figure being not
conformed with its description, thus deepening the sense of distrust among consumers.
Hao believes it is possible to increase trust in the seller by sales volume and buyers’
comments on the seller. Other three advices are suggested by individual respondents,
including tracking the trading process from the start of a transaction, applying a more
severe punishment for fraud and perfecting door-to-door pick-up service. From the
uncertainty respondents showed on these suggestions, there still exist many limitations
if they are practiced in reality. In contrast, Hu is the only respondent who does not think
there is much room for improvement on Idle Fish.

Hu: In my view, it is really difficult to change the operation model of Idle Fish,
since the aim of Idle Fish is to set no threshold so that everyone can trade
freely. If SHC becomes a fashion one day, I hope e-shops specialized in SHC
will be opened on Taobao or a second-hand O2O (online to offline) platform
will be set up. Then SHC can be classified and priced based on their own
standards, which will eventually develop into a brand that everyone trusts.
This is what Idle Fish cannot achieve.

Hu also feels that building an SHC rental platform is more promising than trading SHC,
for such platform has brand endorsement which can guarantee the safety and quality of
SHC.
Other possible development directions

Faced with the question of how to enable young Chinese to buy more SHC, respondents supplement that the social environment is also a very important influencing factor in addition to improvements that should be made by the platform. Five respondents state that buying SHC should be supported by the government and promoted by mass media to arouse public opinion, increasing young people’s familiarity with it and forming a buying trend.

*Ji: In terms of China, where household incomes are increasing constantly, the low price of SHC will no longer be the main reason for purchasing. The development of SHC demands the support from the government and social media. People are more likely to imitate others’ buying behavior. If the trend is not towards this, individuals will certainly not buy SHC.*

To build up this subjective norm, Di suggests that SHC platforms can be encouraged through online shows for sponsorship. Hu and Hao hope that there is a celebrity being revealed of wearing SHC, but they soon acknowledge that it is unlikely because many celebrities even have their own brands. From Xu, she thinks that the government and platform can team up to promote the idea that SHC is beneficial to reduce waste of resources and consumption expenditure, such as making a public service advertising. It includes enhancing Chinese young people’s awareness of environmental protection as well. Nevertheless, Hu admits that it is hard for the government to get involved.

Ji hopes that specialized organizations will be involved in the refurbishment of the used clothes. Cheng has heard of a clothing recycling and processing company called Yuan Yuan. As far as she knows, this company is in poor performance.

### 4.2. Questionnaire results and analysis

Altogether 215 questionnaires were recovered, but 5 questionnaires were excluded from the data due to invalid values. A total of 210 questionnaires were kept for further data analysis. Here the result of each question is presented and analyzed.

*Question 1 to 3: Basic information about respondents*

Among all the respondents, the amounts of those from Shandong province and Shanghai are close, 103 and 94 respectively. Only 13 respondents are from other places in China. By gender, female respondents accounted for 63.3%, almost twice as many as male respondents (36.7%). It is probably because investigators sent out the questionnaire initially to friends and many of them are female and probably they sent them further to their female friends. As to age, the majority of respondents are aged between 18 to 24, consisting of 96.7%. This is in line with the age group of our target population (see Table 4).
Table 4  Basic information about respondents

<table>
<thead>
<tr>
<th></th>
<th>Districts</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shandong</td>
<td>Shanghai</td>
<td>Other places</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>N %</td>
<td>Count</td>
<td>N %</td>
<td>Count</td>
<td>N %</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>41</td>
<td>39.8%</td>
<td>27</td>
<td>28.7%</td>
<td>9</td>
</tr>
<tr>
<td>Female</td>
<td>62</td>
<td>60.2%</td>
<td>67</td>
<td>71.3%</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100.0%</td>
<td>94</td>
<td>100.0%</td>
<td>13</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>100</td>
<td>97.1%</td>
<td>92</td>
<td>97.9%</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>2.9%</td>
<td>2</td>
<td>2.1%</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100.0%</td>
<td>94</td>
<td>100.0%</td>
<td>13</td>
</tr>
</tbody>
</table>

Question 4: What is your first impression of SHC? (alternatives)

To get a knowledge of Chinese young people’s general attitudes toward SHC, Question 4 relating to the first impression of SHC was designed and alternatives can be chosen, no more than two. From figure 2, it shows that ‘unsanitary’, ‘cheap’, and ‘eco-friendly’ are the main impressions that Chinese young consumers leave on SHC. The largest number of respondents considered SHC to be unsanitary (124) in contrast to trendy (6).

![First impression of SHC](image)

Since ‘unsanitary’, ‘eco-friendly’ and ‘cheap’ are the top three choices, two cross-tabulations between first impression and gender, and between first impression and districts were made to see if the respondents’ impression on SHC differs by gender and districts. Before the investigation, we have a general mind of females caring more about the environment, and the questionnaire results confirmed this idea. Table 5 displays that nearly 8% more female than male respondents believe that consuming SHC will do good to the environment, while the proportion of both genders who chose the other two options is roughly the same, with a difference about only 1%.
Table 5  Cross-tabulation between first impression and gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Column N %</td>
<td>Count</td>
<td>Column N %</td>
</tr>
<tr>
<td>Unsanitary</td>
<td>46</td>
<td>59.7%</td>
<td>78</td>
<td>58.6%</td>
</tr>
<tr>
<td>Eco-friendly</td>
<td>27</td>
<td>35.1%</td>
<td>57</td>
<td>42.9%</td>
</tr>
<tr>
<td>Cheap</td>
<td>37</td>
<td>48.1%</td>
<td>63</td>
<td>47.4%</td>
</tr>
</tbody>
</table>

Respondents from other places accounted for a small population, so they were not included in this comparison. 64.1% of Shandong respondents linked SHC to insanitation, slightly more than the proportion of Shanghai respondents. On the contrary, more Shanghai respondents regarded SHC as low price and trading SHC as a way to protect the environment. It seems that fewer respondents from Shanghai have negative impression on SHC than those from Shandong province (see Table 6).

Table 6  Cross-tabulation between first impression and districts

<table>
<thead>
<tr>
<th></th>
<th>Shandong</th>
<th></th>
<th>Shanghai</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Column N %</td>
<td>Count</td>
<td>Column N %</td>
</tr>
<tr>
<td>Unsanitary</td>
<td>66</td>
<td>64.1%</td>
<td>49</td>
<td>52.1%</td>
</tr>
<tr>
<td>Eco-friendly</td>
<td>37</td>
<td>35.9%</td>
<td>41</td>
<td>43.6%</td>
</tr>
<tr>
<td>Cheap</td>
<td>46</td>
<td>44.7%</td>
<td>50</td>
<td>53.2%</td>
</tr>
</tbody>
</table>

**Question 5: Which online SHC trading platforms have you heard of before?** *(Alternatives are Idle Fish, Zhuan Zhuan, Liang Yihui, Admall, Er Huo, Tao Xue, Gezi Store, Share 2 and Others)*

The aim of this question is to know about the awareness of different SHC online trading platforms in China. Respondents can choose all the platforms that they have heard of. It can obviously be seen from figure 3 that almost all of the respondents (189) have heard of Idle Fish, followed by Zhuan Zhuan and Liang Yihui. But those who knew about the latter two were far less than those who knew about the former. Other platforms, like Er Huo and Gezi Store, are only known by a few respondents, so the results of them are not shown in figure 3. This indicates that Idle Fish may dominate the online SHC market in China.

**Question 6: To what degree do you know about online SHC trading platforms?**

For this question, respondents rated how much they are acquainted with online SHC trading platforms in a scale from 0 to 5 (‘0’ means they know nothing, and ‘5’ means they know quite a lot). Respondents who chose ‘0’ were directed to Question 9. As shown in Table 7, 73 respondents selected that option, the largest number of all
dimensions, which means more than a third of the respondents did not know anything about online SHC trading platforms. Conversely, only one respondent respectively chose dimension 4 and 5, which means only two respondents are quite familiar with platforms. The remaining respondents had limited knowledge of platforms. It can be inferred that the respondents may not use online SHC trading platforms and trade SHC that often. Meanwhile, the market for online SHC trade in China would be huge if these platforms could be known and used by more consumers.

**Table 7** Frequency of the degree of knowing about online SHC trading platforms

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>0</td>
<td>73</td>
<td>34.8</td>
<td>34.8</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>67</td>
<td>31.9</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>44</td>
<td>21.0</td>
<td>87.6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>24</td>
<td>11.4</td>
<td>99.0</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1</td>
<td>0.5</td>
<td>99.5</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1</td>
<td>0.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Question 7:** Do you think that online SHC trading platforms have the following problems?

Below this question, there are 6 dimensions about the problems that online SHC trading platforms may have. Respondents evaluate each dimension with ‘Yes’, ‘No’ or ‘I don’t know’. This question is only answered by filtered ones who knew something about platforms, so the number of respondents for this question is 137.

**Figure 4** Evaluation of problems on SHC platforms

Each dimension got over 60% of the respondents who thought they were problematic issues on SHC trading platforms indeed except dimension 5, which is about commodity classification, accounting for about 49%. The most problematic one is the lack of quality inspection on clothing, followed by too low entry threshold for sellers. The number of respondents, who believed that there are existing problems in terms of credit
evaluation for sellers and regulations during the transaction, is the same (see Figure 4).

Question 8: Have you ever bought second-hand clothing on an online SHC platform? Which one?

This question is to investigate respondents’ previous buying behavior on online SHC. Respondents who need to answer it were also based on the option selected in Question 6. The sample size of this question is 137. According to the results, 124 out of 137 respondents have never bought SHC online, which manifested that only a very few respondents had such experience. Among those who have bought SHC, all of them purchased it from Idle Fish. The types of clothing include cosplay costumes, band T-shirt, etc.

Question 9: What is the possibility that you will buy online SHC in the future?

Respondents showed their future purchase intention to SHC in this question and their general attitudes to this affair can be inferred. 40 out of 210 respondents were sure that it is not possible for them to buy SHC in the future, constituting 19.1%, while a large number of respondents (170) felt that there is still a certain possibility of buying SHC in the future. There are 125 respondents who thought the possibility is low, compared with 45 respondents who thought there is a greater likelihood. Future purchase possibility is cross-analyzed by districts and gender respectively in table 8 and table 9.

<p>| Table 8  Cross-tabulation between future purchase possibility and districts |
|-------------------------------------------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th></th>
<th>Shandong</th>
<th>Shanghai</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High possibility</strong></td>
<td>Count</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>% within Places</td>
<td>21.4%</td>
</tr>
<tr>
<td><strong>Low possibility</strong></td>
<td>Count</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>% within Places</td>
<td>60.2%</td>
</tr>
<tr>
<td><strong>No possibility</strong></td>
<td>Count</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>% within Places</td>
<td>18.4%</td>
</tr>
</tbody>
</table>

From table 8, it illustrates that the proportion of respondents from Shandong province is almost equal to that of respondents from Shanghai on each dimension of possibility, which implies that the likelihood of buying SHC may not be influenced by districts. As to gender (see Table 9), there is a significant difference between male and female. The percentage of female respondents who will not buy SHC online is 15%, much lower than that of male respondents (26%). In other words, female respondents hold more positive attitudes to online SHC than male respondents.

<table>
<thead>
<tr>
<th>Table 9  Cross-tabulation between no possibility and gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>No possibility</td>
</tr>
</tbody>
</table>

25
Question 10: Suppose you want to buy SHC from a second-hand trading platform online, please choose 4 alternatives and rank them from the following purchase factors.

Table 10 presents the weighted mean of 9 purchase factors which involves three aspects of perceived concerns, perceived values and subjective norm that referred by Xu et al. (2014). Each value is calculated by the following formula:

\[
\text{Weighted mean} = \frac{X_1W_1 + X_2W_2 + \cdots + X_nW_n}{\text{Total responses}}
\]

X means response count for each answer choice and W represents the weight of ranked position. The value of W is decided by ranked position and the number of options. In this question, there are 9 choices. Choice ranked first has a weight of 9, choice ranked second has a weight of 8, choice ranked third has a weight of 7 and so on. The higher the weighted mean of one variable, the more important it is in the overall variables.

<table>
<thead>
<tr>
<th>Purchase Factor</th>
<th>Weighted mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Hygiene and safety problem</td>
<td>5.82</td>
</tr>
<tr>
<td>F. Clothing condition</td>
<td>5.24</td>
</tr>
<tr>
<td>B. Price</td>
<td>4.90</td>
</tr>
<tr>
<td>A. Environment</td>
<td>3.41</td>
</tr>
<tr>
<td>I. Platform reputation</td>
<td>3.12</td>
</tr>
<tr>
<td>E. Collectible value</td>
<td>2.67</td>
</tr>
<tr>
<td>G. Difficulties of buying</td>
<td>2.36</td>
</tr>
<tr>
<td>C. Popular trend</td>
<td>1.30</td>
</tr>
<tr>
<td>H. Hedonism</td>
<td>1.17</td>
</tr>
</tbody>
</table>

The importance of different purchase factors varies widely for respondents. Hygiene and safety problem ranked first with an average weighted mean of 5.82, followed by clothing condition and clothing price. The choice ‘hedonism’ got the lowest rating, which indicates the main reason for buying SHC if possible is not for fun. It is consistent with the result of Question 4, in which most respondents associated SHC with insanitation and few of them thought it fashionable.
**Question 11:** Which of the following methods do you think are more feasible for increasing young people’s buying behavior of online SHC?

**Table 11** Feasibility of different methods

<table>
<thead>
<tr>
<th>Count</th>
<th>Column N %</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>167</td>
<td>79.5% Improve existing SHC trading platforms</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
<td>35.7% The government should put forward corresponding policies</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
<td>38.1% Strengthen the support by the government and social media on buying SHC</td>
</tr>
<tr>
<td>4</td>
<td>69</td>
<td>32.9% Enhance environmental awareness among young people</td>
</tr>
<tr>
<td>5</td>
<td>67</td>
<td>31.9% Transformation of existing second-hand clothing trading platforms to more specific group of goods</td>
</tr>
<tr>
<td>6</td>
<td>70</td>
<td>33.3% Develop online trading platforms with different business models such as B2C and O2O</td>
</tr>
</tbody>
</table>

Question 11 is to find possible ways to increase Chinese young people’s buying behavior. Six methods are derived from interviews and literature. Respondents can choose no more than 3 alternatives.

Nearly 80% of the respondents felt that it is more practical to make existing platforms better. The percentage of respondents who chose putting forward policies by government, strengthening the support on SHC, enhancing Chinese young consumers’ environmental awareness, transforming platforms on specific goods and developing platforms with different business models is all between 30% and 40%, which presents the feasibility of other methods is small but still exists. Conducting the transformation of SHC platforms has the lowest possibility (see Table 11).

**Question 12:** Do you have any other suggestions that you would like to supplement to encourage Chinese young people to buy more second-hand clothes?

Question 12 is an open question and it is mandatory for every respondent to answer. More than half of the respondents did not have any opinions (answered ‘no’) and did not give any suggestions. From those who gave their advice, 18 respondents still put emphasis on hygiene and safety problem. 4 respondents mentioned one of the reasons that Chinese young consumers do not want to buy SHC is psychological resistance, and the traditional notion may be changed through supporting trading SHC by the government and publicizing more by media according to 10 respondents. Others were concerned about strengthening the management of SHC platforms such as completing after-services sales, perfecting mechanism system to encourage more consumption and improving awareness for environment protection. Few of them thought there should be offline SHC stores and few thought that the focus of SHC could be shifted to vintage clothing. Three of the respondents were negative about buying SHC.
5. Conclusion and discussion

From the literature, it is not hard to see that SHC market in China is very likely to be further developed, and Chinese young consumers show a higher intention to buy SHC than older generations. Our aim of this investigation is trying to find out possible ways that can increase Chinese young consumers’ buying behavior of online SHC. In the conclusion part, three research questions will all be answered. The third question will be further discussed in the discussion part. Also, suggestions for further research will be given in the end.

5.1. Conclusion

First two research questions:
1. What are Chinese young people’s attitudes towards buying SHC?
2. What factors affect Chinese young people’s buying behavior of online SHC?

Among numerous online SHC trading platforms in China, Idle Fish has the highest awareness and is the most widely used, followed by Zhuan Zhuan. Most Chinese young consumers have a smattering of online SHC trading platforms, but they do not have any buying experience on these platforms. Based on the answers from our respondents, less than 10% of them have purchased online SHC before. There are also quite a few Chinese young consumers being completely unaware of any online SHC trading platforms. Therefore, the number of potential consumers in the online SHC market might be high if they are acquainted with SHC platforms.

The majority of Chinese young consumers regarded SHC as something unsanitary, cheap but eco-friendly. A few of them thought that wearing SHC would make them lose face, and a few associated SHC with fashion. As expected, females perceive higher environmental value of SHC than male consumers. There are some differences between the two districts. Compared with young consumers from Shandong province, more young consumers from Shanghai pay attention to the environmental friendliness of SHC and consider that the price of SHC is cheap.

Though only a small number of respondents said a definite ‘NO’ to SHC and most of them had some probability to buy SHC in the future, it is less likely that there will be a large number of consumers for the lower possibility. It might be that females have higher awareness of protecting the environment, so they show higher intention for SHC purchase than male consumers. In terms of districts, respondents in Shanghai and Shandong province shared the same likelihood to buy SHC.

As for the purchase factors, there are four other main influencing factors ranked by respondents except for environmental friendliness. They are hygiene and safety problem, clothing condition, price, and platform reputation. Chinese young consumers have strong concerns over hygiene problem, and they mind if SHC is in good condition.
This means Chinese young consumers hold a high level of perceived concerns. However, Chinese young consumers do not see a high economic value since the price of SHC is not low enough at present. This may be due to the fact that the prices of SHC and new clothes in the Chinese market are not much different. Considering that it is an online trade, Chinese young consumers put some emphasis on platform reputation. The more standardized and mature the platform management is, the more likely it is for consumers to buy SHC. By contrast, the two last factors for Chinese young consumers to consider are hedonism and popular trend, which shows Chinese young consumers hold low perceived hedonic values and low subjective norms. Surprisingly, they do not care about the impact of other consumers’ purchasing behavior on them, which is inconsistent with the literature.

The third research question: How could Chinese young people’s buying behavior of online SHC be increased from their perspective?

Combining the results from the interviews and questionnaires with background and literature presented in the first two chapters, six probable ways to enable Chinese young consumers to purchase more SHC are listed in the order of feasibility ranked by respondents:

- Improve the existing SHC trading platforms and strengthen the hygiene control of clothing
- Strengthen the support by the government and social media on buying SHC
- Corresponding policies should be put forward by the government
- Develop online trading platforms with different business models such as B2C and O2O
- Enhance environmental awareness among Chinese young people
- Transform existing second-hand clothing trading platforms to a more specific group of goods

5.2. Discussion

Here six possible ways are discussed in detail about the reason why they are taken into consideration, and also their possible restrictions in reality.

1. Improve the existing SHC trading platforms and strengthen the hygiene control of clothing: Among these six ways, this is the most feasible way to conduct from the respondents’ perspective. It is probably because SHC platforms are closely related to consumers’ purchase experience. Chinese young consumers feel that there are a lot of problems needed to be solved on platforms, such as lack of quality inspection on clothes, too low entry threshold for sellers, imperfect credit evaluation mechanism of the seller, etc. No matter from the point of the first impression on SHC, factors affecting the purchase behavior of SHC, or the problem that platforms need to resolve, Chinese young consumers worry about hygiene and safety of SHC most. If platforms can inspect and standardize the quality of clothes and disclose the inspection process, more people may consider buying SHC online. However,
whether platform operators consider that making these improvements are in line with their own interest is worth exploring.

2. **Strengthen the support by the government and social media on buying SHC:** Since some Chinese young consumers are totally ignorant of online SHC platforms, publicity through the government and social media will make more people aware of the existence and channels of buying SHC. Besides, the more propaganda there is, the more likely it might form a popular trend to purchase used clothing. Although most Chinese young consumers nowadays are not affected by other’s purchase behavior, there are still a small number of consumers who will try SHC because of the trend.

3. **Corresponding policies should be put forward by the government:** The government policies are the basis of all business activities. At present, China has some support for recycling waste textiles, but the relevant regulations are not perfect, especially the lack of policies on online SHC transactions. Also, there lacks a clear classification and recycling mechanism for second-hand garments. With more government policy support, more Chinese young consumers will actively participate in the trade of online SHC. However, it may be not easy for the government to launch such policies and time is needed.

4. **Develop online trading platforms with different business models such as B2C and O2O:** Two of the most popular SHC trading platforms, Idle Fish and Zhuan Zhuan, have adopted the C2C (customer to customer) business model. This model makes it easy to trade, but it is hard for platform operators to get quality control over commodities sold by individual sellers. However, the B2C business model can overcome this shortcoming, and platform operators can standardize the quality of the goods. O2O is another business model that combines online and offline experiences and transactions, which can eliminate the circumstance that products traded online do not match the descriptions, thus increasing consumer trust.

5. **Enhance environmental awareness among Chinese young people:** Although many people may buy SHC for environmental reasons in the future, this is not the main reason. They may not completely realize the environmental benefits of buying SHC, and in this respect, their environmental awareness can be enhanced through government and media campaigns or school education.

6. **Transform existing second-hand clothing trading platforms to a more specific group of goods:** Items such as vintage, second-hand luxuries are under the subcategories of SHC. These are kinds of SHC with collectible value. Vintage clothing is now trendy in western countries. The transformation of second-hand platforms allows operators to focus more on a specialized subcategory, to attract consumers with specific needs.
5.3. Suggestions for further research

In this investigation, possible ways of encouraging the SHC consumption among Chinese young consumers are all concluded from the consumers’ view. Future research could focus on the perspective of Chinese government or online SHC trading platform operators, in order to test if these ways are executable, how easily they could be implemented and whether they really work.

According to the respondents we investigated, most of them only know about Idle Fish. Therefore, the investigation of online SHC clothing platforms’ performance, for example, business model and existing problems, was largely based on Idle Fish. Situations on other platforms could be further investigated by future researchers.

In addition, our respondents are mostly from Shanghai and Shandong province, representation is limited for the whole Chinese young consumers population. Young consumers from other districts in China could be included in further research to get a more general result of their perception on buying online SHC, as well as compare the common characteristics and regional differences.
Reference


He, Q. (2015). 基于青年群体对“二手服装再设计”的社会态度研究[The social attitude research about “the SHC design” based on youth groups]. Master. Wuhan Textile University.


Appendix

Appendix 1

Questions in Interview

Main questions:
1. What do you think of buying second-hand clothing (SHC)?
2. Do you think that you will buy SHC on e-shops in the future? Why do you think that?

Follow up questions:
1. Have you ever bought SHC online? If not, why did you not buy SHC online?
2. Have you ever heard of any online SHC trading platforms? What do you think of them?
3. Do you see any pros and cons in buying SHC?
4. Do you have any suggestions for improving online SHC trading platforms?
Appendix 2

Questionnaire
Hello, we are two Chinese exchange students from University of Borås. Now we are working on our bachelor thesis on the Chinese young consumers’ online buying behavior of second-hand clothing (SHC), and possible ways to increase such purchase rate. Thank you very much for taking 4-5 minutes to help us finish this survey. Your personal information will be kept strictly confidential!

1. What’s your gender?
   A. Male
   B. Female
2. How old are you?
   A. 18-24
   B. Others______
3. Where are you currently studying?
   A. Shandong
   B. Shanghai
   C. Another place______
4. What is your first impression of SHC? (Choose no more than two alternatives)
   A. Face-losing
   B. Unsanitary
   C. Eco-friendly
   D. Cheap
   E. Trendy
   F. Others______
5. Which online SHC trading platforms have you heard of before? (Multiple choice)
   A. Idle Fish
   B. Zhuan Zhuan
   C. Liang Yihui
   D. Admall
   E. Er Huo
6. To what degree do you know about online SHC trading platforms? (If you choose ‘0’, you will be directed to question 9)
   - I don’t know anything (0-5)
   - I know quite a lot

7. Do you think that online SHC trading platforms have the following problems? (Yes, No, I don’t know)
   7. Lack of quality inspection on clothes
   8. Too low entry threshold for sellers
   9. Imperfect credit evaluation mechanism of the seller
   10. Lack of regulation during the transaction process
   11. There is no commodity classification for individual items
   12. Incomplete after-sales services

8. Have you ever bought second-hand clothing on an online SHC platform? Which one?
   - Yes, on ________
   - No

9. What is the possibility that you will buy online SHC in the future?
   - High possibility
   - Low possibility
   - No possibility

10. Suppose you want to buy SHC from a second-hand trading platform online, please choose 4 alternatives and rank them from the following purchase factors. (1= the most influential factor, 4= the less influential factor)
    - Environment
    - Price
    - Popular trend
    - Hygiene and safety problem
    - Collectible value
F. Clothing condition
G. Difficulties of buying
H. Hedonism
I. Platform reputation

11. Which of the following methods do you think are more feasible for increasing young people’s buying behavior of online SHC? (Multiple choice, choose no more than 3 alternatives)

A. Improve existing SHC trading platforms
   (e.g. the platform should identify the source and quality of clothing, review seller’s credit, etc.)
B. The government should put forward corresponding policies
C. Strengthen the support by the government and social media on buying SHC
   (e.g. promoting SHC platform by online shows, teaming up the government and platform to make public service ads, etc.)
D. Enhancing environmental awareness among young people
E. Transformation of existing second-hand clothing trading platforms to more specific group of goods
   (e.g., only sell second-hand luxury goods, vintage, sportswear, etc.)
F. Developing online trading platforms with different business models such as B2C and O2O (B2C means that business to consumers, O2O means that online to offline or vice versa)

12. Do you have any other suggestions that you would like to supplement to encourage Chinese young people to buy more second-hand clothes? (Required)
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