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Trends of Anti-consumption Awareness and Behaviours in The Chinese Society

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Master in Management

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**BUSINESS
SCHOOL**

Department of Marketing, Strategy and Operations

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Abstract

It is an inescapable phenomenon that many individuals, companies, and organizations are now adopting eco-friendly products to solve the environmental degradation problem. Some people argue that the prevalence of consumerism causes people to overspend the resources of the planet. Anti-consumption originally emerged from a niche market. As Internet access becomes affordable and convenient, anti-consumption is gaining support from millions of followers. The concept of anti-consumption is still inconclusive, and most research focuses on qualitative or empirical studies. In China, anti-consumption has not been studied extensively, with only a few research studies discussing consumer behaviour from the anti-consumption point.

This research uses quantitative methods to study the anti-consumption awareness and anti-consumption behaviour among the Chinese. The data is collected through an online questionnaire and analysed with SPSS.

The results of this study can illustrate the anti-consumption level in China and pave the way for further research in this field and provide an indicator to companies that are interested in modifying their products for better environmental protection.

Keywords: anti-consumption awareness, anti-consumption behaviour, voluntary minimalist, boycott, materialism

Resumo

É um fenómeno inevitável que muitos indivíduos, empresas e organizações estejam a adotar produtos ecológicos para resolver o problema da degradação ambiental. Algumas pessoas argumentam que a prevalência do consumismo faz com se utilize em demasia os recursos do planeta. O anti-consumo surgiu originalmente de um nicho de mercado. À medida que o acesso à Internet se torna acessível e conveniente, o anti-consumo vai ganhando o apoio de milhões de seguidores. O conceito de anti-consumo ainda é inconclusivo e a maioria das pesquisas concentram-se em estudos qualitativos ou empíricos. Na China, o anti-consumo não foi estudado extensivamente, tendo apenas uma pequena literatura onde se discute o comportamento do consumidor do ponto de vista anti-consumo.

Esta pesquisa usa métodos quantitativos para estudar a consciência anti-consumo e o comportamento anti-consumo entre os chineses. Os dados foram coletados por meio de questionários online e analisados no SPSS.

O resultado pode ilustrar o nível anti-consumo na China e abrir caminho para novas pesquisas neste campo, fornecendo um indicador para empresas que estão interessadas em modificar seus produtos para uma melhor proteção ambiental.

Palavras-chave: consciência anti-consumo, comportamento anti-consumo, minimalista voluntário, boicote, materialismo

Content Index

Acknowledgements	i
Abstract	ii
Resumo	iii
Content Index	iv
Table Index.....	vi
Figure index.....	vi
1. Introduction	1
2. Literature Review	3
2.1 Consumption/ Materialism	3
2.2 Anti-consumption	4
2.3 The spectrums of anti-consumption	5
2.3.1 Anti-consumption awareness	5
2.3.2 Anti-consumption behaviours	6
2.3.3 Anti-consumption result.....	7
2.3.4 Influencing factors	8
2.4 Complicated situation in China	9
3. Research Hypotheses.....	11
3.1 Conceptual Model and Scope of Study	11
3.2 Investigation’s Hypotheses.....	12
3.2.1 Demographics Hypotheses.....	12
3.2.2 Anti-consumption Awareness and Behaviours Hypotheses	14
4. Methodology	17
4.1 Methodological Approaches to the Quantitative Study.....	17
4.2 Sampling Process.....	17
4.3 Pre-Test.....	18
4.4 Statistical Techniques for the Quantitative Data Analysis	19
4.4.1 Descriptive Analysis	19
4.4.2 Principal Component Analysis	19
4.4.3 Hypotheses’ Test.....	19
4.4.4 Linear Regression Models	20

- 5. Finding22
 - 5.1 Descriptive Analysis.....22
 - 5.1.1 Descriptive Analysis of demographics information22
 - 5.1.2 Descriptive Analysis of consumption behaviour23
 - 5.1.3 Consumer behaviour by demographic information25
 - 5.2 Principal Component Analysis26
 - 5.2.1 PCA of anti-consumption awareness26
 - 5.2.2 PCA of anti-consumption awareness27
 - 5.3 Hypotheses’ Tests.....29
 - 5.4 Linear Regression31
- 6. Conclusion.....33
- 7. Further Research35
- 8. Limitation36
- Reference.....37
- Annexes A.....41
- Annexes B68

Table Index

Table 1 Frequency of Respondents	22
Table 2 Demographic Statistics.....	23
Table 3 Consumption Behaviour.....	24
Table 4 CROSSTABLE between socio-demographic and consumption behaviour.....	26
Table 5 PCA of Anti-consumption Awareness	27
Table 6 PCA of Anti-consumption Behaviours	28

Figure index

Figure 1 An Anti-consumption Framework	11
Figure 2 Anti-consumption and Anti-consumption Behaviour Hypotheses	15

1. Introduction

Business development is inseparable from excessive consumption. In the early stages of business development, individuals obtained other living materials by exchanging their own surplus products. As time went by, holding a commodity, more explicitly speaking, possessing a material was given more meanings (Belk, 1985). Materialistic value has direct on personal feelings, such as the sense of fulfilment, satisfaction, and happiness (Richins & Dawson, 1992). People's consumption is not all for survival, but a significant portion of consumption is to satisfy individuals' intangible feelings. Consequently, the merchants make good use of this consumer psychology of to boost the intangible value of their products through marketing techniques, in order to sell more products. In the end, the essence of buying for needs is diluted and replaced by intangible satisfaction and vanity (Belk, 1985).

Anti-consumption is not a new concept in both the business world and the academic world (Iyer & Muncy, 2009). The prefix "anti-" has an easy-to-understand meaning, so that anti-consumption is the opposite side of consumption (Lee, Fernandez & Hyman, 2009). However, there is no clear definition of anti-consumption, and different scholars have mixed view on anti-consumption (Makri, Schlegelmilch, Mai & Dinhof, 2020).

Based on extensive literature review, Makri et al (2020) summarized that anti-consumption was an entire process, which included the reason of anti-consumption, the behaviours of anti-consumption, and the impact of anti-consumer actions, and effects political ideology, economic policy, cultural background and so on. One possible explanation is that anti-consumption is a complex combination inherently.

In China, anti-consumption research only focuses on some anti-consumption behaviours and cultural influence (Ma,2015). The sophisticated social conditions are also reflected in anti-consumption. Frugality has always been regarded as a virtue by the Chinese (Ma,2015). Consumption has been advocated to promote economic growth since the economic reform initiated in 1979 (Wu,2012). With the development of the Internet and globalization, Minimalism is becoming popular among young people (Chen, 2018). As can be seen, such a fragmented consumption attitude exists in Chinese society at the same time, which is attracting broad interest in research to portray the reality of anti-consumption attitudes in the Chinese society.

According to the literature review discussed above, there are several research gaps in China's anti-consumption field. First, it lacks a whole picture of anti-consumption levels in China.

Secondly, there is no quantitative research covering various conditions from the perspective of anti-consumption, for example the geographical difference impact on anti-consumption. Thirdly, the anti-consumption lacks vertical comparison because the concept of anti-consumption is relatively new to consumerism (Ma,2015).

This research will base on quantitative study to evaluate the anti-consumption awareness and anti-consumption behaviour in the Chinese society. Moreover, to understand the current anti-consumption situation in China, the research will also include an in-depth analysis of the influencing factors from the economic, cultural, and social aspects. The data is collected from an ordinary city in northern China, Hohhot. The GDP of this city is at the average level in China, which reduces any bias due to income difference.

The whole study puts forward the anti-consumption awareness and anti-consumption behaviours assumptions based on the anti-consumption model created by Rajesh Iyer and James Muncy, who suggested four types of anti-consumption: "global impact consumers," "simplifiers," "market activists," "anti-loyal consumers" according to anti-consumption reasons(Iyer & Muncy, 2009). Then, the comprehensive condition model (Makri, Schlegelmilch, Mai & Dinhof, 2020) will be integrated into the study.

After this study, the respondents' anti-consumption situation could render a glimpse of Chinese consumers and lay the groundwork for future research.

2. Literature Review

2.1 Consumption/ Materialism

It is generally agreed that materialism has a more definite and comprehensive definition. For example, if someone has a specific item that makes them feel unique, gives them the sense of success, and lets them get possessive (not wanting to share) (Belk, 1985); that is materialism.

In Belk's theory, in addition to exclusivity, goods also impact people's psychology (Belk, 1984). The effect of commodities on human psychology has gradually been paid attention to by scholars. More and more studies have found that people's happiness can be obtained by possessing good, and material possessions can amplify people's self-centred feelings, thereby pleasure (Richins & Dawson, 1992). Richins and Dawson's (1994) subsequent research also confirmed that materialism could evaluate whether a person has success secularly. This phenomenon has again led people to consume for showing the so-called success, rather than consumption because of needs (Richins, 1994).

Follow this vein; more social behaviours related to consumption can be revealed. First, advertising can influence consumer choice. Usually, advertisements can abstract concrete products. By creating a sense of identity with consumers at the abstract level, images' consumption can contain abstract meanings. Consumer satisfaction is not only intangible but also supernatural (Yoon, 1995). And then advertising is an approach to let the individual establish favourable perception of the brand, thus forming symbolic consumption that defines an individual by appearance or materials possessed, while at the same time showing off his or her wealth (Kamineni, 2005).

Secondly, the social environment profoundly impacts consuming results ((Fitzmaurice & Comegys, 2006)). People tend to socially be identified consumer behaviours rather than self-identified consumer behaviours (Schroeder & Dugal, 1995). Moreover, the social environment also shapes people's self-esteem. Satisfying self-esteem or getting social affirmation can also produce corresponding social consumption behaviours (Deci & Ryan 1995).

Thirdly, research on consumer behaviour usually emphasizes personal psychology. For instance, individuals over-worried about using something at some time relieve anxiety by preparing well (Chang & Arkin, 2002). And active compulsive consumption is also commonly referred to as shopaholics, which individuals cannot stop purchasing certain goods or services (Rindfleisch, Burroughs & Denton, 1997). Addictive consumption leads to over-shopping,

unpaid credit cards balance, over-squeezed personal space (Judd, 1998). The adverse effects of consumption frequently discussed by scholars previously focused on conspicuous consumption, high-level consumption exceeding daily needs, and consumption just for showing off their wealth (Trigg, 2001). After a comparative analysis of consumption and materialism, researchers concluded that consumption is not black and white; it has both positive and negative effects (Podoshen, Li & Zhang, 2010).

Since the turn of the 21st century, the advancement of productivity, the development of the Internet, and the upgrading of the service industry consumerism has flooded people's lives non-stop (Oral & Thurner, 2019). Black Friday deals and various holiday and seasonal sales act like an alarm to inform people that it is time to consume (Kwon & Brinthaup, 2015). Consumerism seemed to be out of its gate, and the moral criticism of consumption began to appear (Borgmann, 2000). At the same time, anti-consumption attracted more and more attention, because it is not a desirable ideal rather than an achievable reality.

2.2 Anti-consumption

The severe degradation of the environment reminds us that the earth is being overloaded by human activities (Neukom, Steiger, Gómez-Navarro, Wang & Werner, 2019). When humans think about solution of this problem, many concepts were proposed. Anti-consumption as feasible solution is supported by lots of people (Makri, Schlegelmilch, Mai & Dinhof, 2020). It is worth mentioning that the International Centre for Anti-consumption Research (ICAR) established in 2005, consisting of more than 50 affiliates, has played a positive role in promoting anti-consumption research (<https://www.icar.ngo/>).

Hereafter, Iyer and Muncy (2009) tried to summarize the anti-consumption from the standpoints of consumers' anti-consumption behaviours. Their model could be structured as a square matrix. The horizontal level distinguishes between societal and personal concerns, while the vertical level indicates the behaviours of those who aim to reduce their overall consumption and seek to reduce their consumption of specific products or brands. In the end, the researchers suggested four conceptual types of anti-consumption consumers: global impacting consumers, simplifiers, market activists, and anti-loyal consumers (Iyer & Muncy, 2009). However, even though the model can cover most of the anti-consumption aspects, such as voluntary simplifying and boycotting, it only focuses on the reasons (Chatzidakis & Lee, 2012). Moreover, purpose or

result-oriented models enrich the definition of anti-consumption because it is necessary to put individual behaviours in the social and cultural environment for vertical comparison to judge the value of actions (Lee, Roux, Cherrier & Cova, 2011).

Notably, a whole-process anti-consumption model was proposed by Makri, Schlegelmilch, Mai, and Dinhof's (2020). In this model, the entire behavioural process of anti-consumption was divided into three stages, including the reasoning of anti-consumption, the behaviours of anti-consumption, and the impact of anti-consumer actions. The effects of political ideology, economic policy, cultural background was also considered. They also analysed anti-consumption awareness or the reason why individuals prefer to have different anti-consumption behaviours. The behaviours can be anti-consumption behaviour either for specific things or general things. The results may be used to analyse the impacts on the individual, the micro world, and the macro world levels. Of course, in the process of awareness driving behaviour, culture, politics, and economy have significant influence (Makri, Schlegelmilch, Mai & Dinhof, 2020).

2.3 The spectrums of anti-consumption

2.3.1 Anti-consumption awareness

Voluntary simplicity came on earlier than anti-consumption. It is the development of personal ideology rather than an abstract summary of concepts (Ballantine & Creery, 2010). Buddhism has advocated frugal; lifestyles, emphasizing that individuals should put aside the worldly temptation and reach the real state of happiness through self-reflection and practice, instead of relying on materials to achieve self-satisfaction (Oral & Thurner, 2019). Voluntary simplicity gradually relates to self-cultivation, self-development, and self-satisfaction. Voluntary simplicity is a means to find people themselves (Craig-Lees & Hill, 2002). And then, individuals can define their voluntary simplicity according to their actual situation to achieve self-satisfaction. If you are a painter and want to practice voluntary simplicity, painting tools are impossible to declutter; but for the musicians who are not interested in painting, painting tools can be decluttered (Bekin, Carrigan & Szmigin, 2005). That is why the voluntary simplicity varies from person to person, so there are no standard rules but a general idea.

Sustainability explains the reasons for anti-consumption at a broad level (Black, 2010). Environmental degradation is inevitably getting worse; it is undeniable that human beings play a

key role; likewise, changes in social activities can play a positive role in protecting the increasingly fragile ecological environment (Mackay, 2008). As a consumer, it is necessary to find a balance between sustainable development and consumption. Making consumption a positive factor for sustainable development should also be considered (Arnould & Thompson, 2005). When individuals begin to pursue being a good consumer who starts to pay attention to their carbon footprint, carefully thinking about their consumption behaviour and possible damage to the environment, positive behaviour will form ("An inconvenient truth," 2007). Therefore, for the sake of socially sustainable development, people advocate reducing consumption as much as possible to avoid generating more ecological and social problems (Sandıkçı & Ekici, 2009; Cherrier, Black & Lee, 2011). Sustainability is vital to companies or producers, because the consumer merely choose which product they will buy, but companies or producers need to decide which product to produce based on consumer desires (Black, 2010).

2.3.2 Anti-consumption behaviours

Minimalism can be traced back to an art genre, which eliminates all decoration. When individuals appreciate the art pieces, it is an experience of being a part of Art, and the environment (the Art of the short story 2008). Minimalism is a state of life and an aesthetic style — "LESS IS MORE" becomes a standard (Chen 2018). Marie Kondo's book — The Life-Changing Magic of Tidying Up is a popular minimalist lifestyle. Likewise, Joshua Field Milburn and Ryan Nicodemus from the U.S. are the most famous advocates for Minimalism. They introduce the Minimalism through the book the Minimalism and the website both appealing millions of followers (Meissner, 2019). Downsizing personal belongings has many benefits like staying focused, improving efficiency, and caring about the quality of life. Minimalism has become the representative of personal anti-consumption behaviour (Błoński & Witek, 2019).

Individual who believe in Minimalism will try to hold less stuff and think twice when making a new purchase (Ballantine & Creery, 2010). The minimalists care about the enjoyment of their life experience, not the items. It impossible to enjoy a full life by possessing lots of materials without meaningful experiences (Alexander, 2011; Rodriguez, 2017). It would be barking up the wrong tree to consider people who stock up products designed for minimalist to be minimalists. These consumers use minimalism products to pretend they are minimalists (Meissner, 2019).

Boycott began with anti-haul because of the price (Tyran & Engelmann, 2005). Later it is used for many other reasons, like Fast fashion brands recruiting cheap labor and child labor, highly polluting enterprises that damaged the local ecological environment without punishment. Boycotting may be for different reasons, but the method is the only one — do not buy (Hoffmann & Müller, 2009). Boycott can also be understood as a process from awareness to behaviour, and it is a response from the whole society eventually (Klein, Smith & John, 2004). Some people are calling for quality over quantity, others recommend reject over cleaning to maintain the life span of product (Tyran & Engelmann, 2005).

Anti-brand loyalty or brand avoidance gains less attention than other ways discussed above (Lee, Motion & Conroy, 2009). Loyal consumers of a brand will tend to repurchase its products. Anti-loyal consumers will decide not to buy because of past unpleasant experiences or brand positioning is not in line with themselves (Banister & Hogg, 2004). Anti-brand loyalty or brand avoidance have some similarities to boycott, such as individuals refusing to purchase certain fast fashion brand. Fast fashion brand should be boycotted because it is not eco-friendly. And it is also a brand avoidance behaviour (Iyer & Muncy, 2005). Anti-brand loyalty or brand avoidance will encourage companies to meet consumer demand.

Some specific behaviours point to anti-consumption. For example, the Media Foundation has published a large number of "anti-consumption." advertisements in Adbusters magazines, urging people to stop consuming products potentially harmful to humans, such as tobacco and alcohol, and stop buying products from junk food companies, such as McDonald's (Chatzidakis & Lee, 2012). Some groups advocate reducing consumption as much as possible to avoid generating more ecological and social problems; "No Purchase Day," and "Anti-consumption campaign" are such examples (Oral & Thurner, 2019). In conclusion, anti-consumption behaviour may vary based on individuals' living habits, living environment, life attitude, individual views, but the philosophy is the same (Meissner, 2019).

2.3.3 Anti-consumption result

For individuals, lifestyle directly impacts the quality of life and mental health. According to Maslow's hierarchy of needs, the top goal for individual is to achieve self-actualization. People will eventually start to explore themselves instead of indulging in hedonism and get rid of distracting thoughts so that individual can focus on their own development in limited time, which

eventually results in happiness (Iyer & Muncy, 2015). Well-being can come from spontaneously reducing your possessions instead of increasing the number of items of insignificant practical value (Oral & Thurner, 2019). Notably, human beings are social animals, so advertising and social atmosphere influence anti-consumption behaviour. It is impossible for us to own or abandon some commodities as we wish. The balance between the inner side achievement and social pursuit are different among people (Lee & Ahn, 2016).

Theoretically, the market is indifferent to anti-consumption and consumption. For producers, they are all the same, using consumer psychology and consumer behaviour to sell more products (Makri, Schlegelmilch, Mai & Dinhof, 2020). The market will respond accordingly to anti-consumer behaviours. For instance, people grow vegetables instead of buying it which can stimulate the seed market to sell seedlings that are easier to survive (Bettany & Kerrane, 2011). Similarly, sharing economy and rental consumption are also changing our lives and marketing. More and more companies are beginning to promote the environmental features of their products. Zero waste movement changed the preference of product packaging. Because the producer can decide what goods to produce, boycott or brand avoidance can encourage producer to change bad production way and facilitate the development of industrial upgrading (Ozanne & Ballantine, 2010).

Anti-consumption has undergone a shift from a niche market to a public vision, it is not an avant-garde ideology anymore but an instrument of social change. Many countries are now considering improving the ecological environment as a solution to save our only planet (Kozinets, Handelman & Lee, 2010). Anti-consumption has had an impact on the ethics of society. It stands to reason that the concerns of the environmental degradation are well-justified. One possible solution is to practice anti-consumption behaviour (Black, 2010). With the expansion of globalization and easy access of the Internet, the influence of anti-consumption will become far reaching (Lee, Ortega Egea & García de Frutos, 2020).

2.3.4 Influencing factors

In the process of transforming anti-consumption consciousness into behaviour, the external influence from political, economic, and cultural conditions cannot be ignored (Makri, Schlegelmilch, Mai & Dinhof, 2020). The relatively wealthy countries in the world concentrate in North America, Europe, and Japan, and these countries have achieved a lot in the field of anti-

consumption, because of the developed economic conditions. Most countries in these regions have entered the postmodern society. The low-end industrial chain is being moved to less developed countries. The improvement of the environment begins with people thinking about better life particularly for future generations. Anti-consumption is therefore affected by consumerism based on a deeper understanding of the dangers of consumerism. Mature social organization structure and social welfare are favourable conditions for anti-consumption practices. (Humphery, 2009).

Religion also affects the anti-consumption process. For example, Muslims do not eat pork, and the Buddhism calls on monks to practice abstinence. In abstract terms, religion's influence on people comes from ideology with the power of shaping personal ethics, which has lasting impact (Kozinets & Handelman, 2004).

Personal upbringing experience also has a great impact on anti-consumption. Individuals who grew up in a materially deprived family, or were taught anti-consumption disciplines, will make retaliatory consumption, or become a shopaholic after they have gained purchasing capabilities. Anti-consumption is also related to personal characteristics. It is undeniable that some people naturally like shopping and some people do not. It also happens that someone know the concept of anti-consumption coincidentally, so they start anti-consumption practice. This can also show that anti-consumption is a complex concept that needs to be analysed from multiple angles (Chan, Zhang, & Wang, 2006). Culture and education also have a certain impact on anti-consumption. The Confucian cultural circle believes that wasting food is unethical.

Governments' policies also affect anti-consumption, such as policy and economic support for environmentally friendly brands, and economic sanctions for companies that damage the ecological environment. These polices directly encourages the development of environmentally friendly enterprises (Chen, H., & Kuang, 2015).

2.4 Complicated situation in China

Much work is needed in China for detailed understanding of anti-consumption awareness and anti-consumption behaviours, as well as a comprehensive analysis of influencing factors.

China is still a developing country, which means conditions are not mature for burgeoning anti-consumption in both academic and market fields; on the contrary, consumerism is the current social mainstream in China (Chan, Zhang, & Wang, 2006). Firstly, the economic reform initiated

in 1979 has enabled rapid economic growth, and provided a material basis for consumption (Cheng, 2001). In 2001, China became a member of WTO. These events have tremendous economic globalization impact on China (Chen, & Kuang, 2015). Consumption has been one of the driving forces of the astonishing Chinese economic growth, especially since the global financial crisis in 2008, and it is an indispensable part of national policies (Ge, 2019).

Traditional Chinese culture and ethical standards have had a profound impact on people today. First of all, the frugal life attitude is widely respected. Confucian culture has an irreplaceable role in the Chinese consumer's behaviour. Although Confucius did not systematically discuss frugality, he advocated that everyone who considers themselves as a well-behaved individual should live as simply as possible. A frugality lifestyle became widely praised virtue (Wu, 2012). The ancient Chinese believed that human happiness was based not only on satisfaction from materials and wealth but also from the spiritual aspects such as keeping harmony with other human beings and the nature (Lai, 2018).

Moreover, thrift is ingrained Buddhists (Kieschnick, 2003). Last but not the least, traditional culture also has a strong people-orientated trend, which means people care about how other people think about them (Chan, Zhang, & Wang, 2006). Conspicuous consumption and symbolic consumption are typical in China (Podoshen, Li, & Zhang, 2010).

The rapid development of the Internet has promoted the spread of both consumerism and anti-consumerism. On the one hand, online shopping's convenience and the accompanying express shipping are undoubtedly enhancing consumerism in China. On the other hand, the Internet is also the main reason for the rapid spread of anti-consumption (Chen & Kuang, 2015). In summary, due to economic, cultural, and technological factors, anti-consumption awareness and anti-consumption behaviours in the Chinese society are quite different from those of other countries.

3. Research Hypotheses

3.1 Conceptual Model and Scope of Study

Makri et al. (2020) developed a model for anti-consumption based on comparative analysis of published research. The model covered three basis aspects of anti-consumption: anti-consumption awareness, anti-consumption behaviours, and anti-consumption results. Some influencing factors were found to be vital to transforming individual anti-consumption awareness into anti-consumption behaviours. Since there lacks sufficient research on anti-consumption in the Chinese society, this study, which focuses on the anti-consumption awareness and anti-consumption behaviours, will produce useful information for future research on this subject.

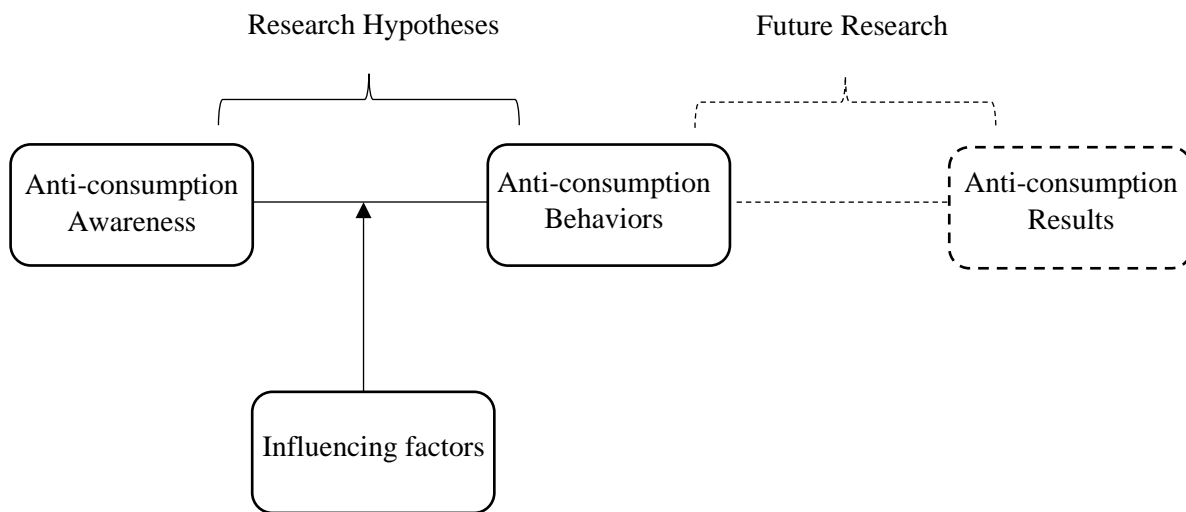


Figure 1 Anti-consumption Framework

(Makri, Schlegelmilch, Mai & Dinhof, 2020).

Consciousness has a significant influence on human behaviour ((Jacoby, Chestnut, & Fisher, 1978)). However, anti-consumption awareness does not necessarily lead to anti-consumption behaviour (Makri, Schlegelmilch, Mai & Dinhof, 2020). Individuals' final behaviours are influenced by many factors, such as the cultural background, personal experiences, and social environments.

China has a vast population of numerous races with varying characteristics, living habits, sub-cultures, and even dialects. Therefore, the same statement from one questionnaire is not going to suit for all respondents (Liang, 2017). To avoid large-scale investigations that may carry

significant deviations from the facts, this study mainly focuses on one city — Hohhot, a city in northern China and the capital city of Inner Mongolia. The reasons for choosing this city are as follows:

1) The per capita GDP in China is 70892¥, while the per capita of GDP in Inner Mongolia is 67852¥ (<http://data.stats.gov.cn/easyquery.htm?cn=C01>);

2) the small GDP gap between the region and the whole country makes this region more representative than in other areas.

3) like many regions in China, this Hohhot is not advanced in environmental protection and is low in socially sustainable development awareness (Li, 2001).

4) the local population's consumption situation has not been affected by the avant-garde extreme minimalist lifestyle (Wang, 2004).

5) the locals enjoy the impact of consumer society and online shopping's convenience as most Chinese do (Zhang, & Ma, 2019).

From researching anti-consumption awareness and anti-consumption behaviour in Hohhot, one can understand the current situation of anti-consumption in the region and get a glimpse of the anti-consumption condition in contemporary Chinese's society.

3.2 Investigation's Hypotheses

3.2.1 Demographics Hypotheses

Gender plays a vital role in consumer awareness and consumption behaviour. The females are more attracted to the appearance of the products; however, the males are more concerned about the performance of goods (Huneke, M. (2005). Commodity mainly for female consumers, such as cosmetics, usually is colourful. The item targeting at male consumers pays more attention to the promotion of product performance, such as razors. The choice of colour is usually relatively less critical for men (Iwata, 1999). Due to the difference between male and female consumers, women are also more likely to ignore demand and do impulsive shopping. According to the difference between the male and the female, the following hypothesis is proposed.

H1: The proportion of the male with anti-consumption awareness is higher than that of the female.

It is mentioned in the above literature review, anti-consumption is an evolving concept. Compared with older people, young people are more sensitive to new information (Liang, 2017). The young people are more able to accept the changes in their lifestyles; on the contrary, the older people cannot change their minds easily because they do not want to change their original living habits (Joy-Yana Thurner. 2019). According to the difference between younger people and older people, the following hypothesis is proposed.

H2: The proportion of younger people with anti-consumption awareness is higher than that of the older people.

Educational background has a significant influence on people's awareness and behaviour. The highly educated people will accept the concept of anti-consumption and be willing to practice it more readily (Ma, 2015). Considering the gap in the educational background among people, the following hypothesis is proposed.

H3: The people with higher education are more aware of anti-consumption than the people with lower education.

The size of a household is a critical factor in this thesis. Those who live alone with anti-consumption awareness can change behaviour at any time, because they have higher degree of control over their possessions and space (Huneke, 2005). But for those living with others, they have less control over their items, living area, even the time, and the cost of behaviour changes is higher than those living alone. Those people from big household will also practice less anti-consumption behaviour even if they appear to be aware of anti-consumption. For example, some people may give up voluntary minimalism because of responsibilities for children (Zhang & Ma, 2019). The population structure concludes the following types: living with parents (or any other relatives), living with parents (or any other elder relatives) and children, living alone, living with partners, living with children, living with partners and children, and living with non-partnership roommates. Considering the household type's impact on anti-consumption awareness, the following hypothesis is proposed.

H4: The household type with less people has higher positive impact on the anti-consumption awareness than the other people.

The occupation status also has a specific impact on voluntary simplicity (Zavestoski, 2002). For example, freelancers will have time to stay with the team and pay attention to their living environment and possessions (Song, Ye, Zhai, Liu, & Zhang, 2009). Considering the impact of

the occupation states on anti-consumption awareness and anti-consumption behaviour, the following hypothesis is proposed.

H5: The occupation states have different positive impacts the anti-consumption awareness.

Since there is still no general agreement on the concept of anti-consumption, after screening various definitions, the Anti-consumption model proposed by Iyer and Muncy (2009) is most inclusive. According to the purpose of anti-consumption and the object of anti-consumption, the model could be divided into four dimensions (Global impact, simplify, market activities, and anti-loyal consumer). The purpose of anti-consumption includes social concern and personal concern. Macro consumption (Overall, indifferent) and micro consumption (Specific brands and industries) belong to the objective of anti-consumption. Most scholars explored the relationship between anti-consumption in various fields or the impact on people based on this model (Makri, Schlegelmilch, Mai & Dinhof, 2020).

3.2.2 Anti-consumption Awareness and Behaviours Hypotheses

This research will classify the degree of anti-consumption to better analyse anti-consumption behaviour. Much of the published research has explored the definitions and cases of anti-consumption, but few focused on the degree of anti-consumption. Some people may have heard of anti-consumption, some may already be an expert of anti-consumption. Both have anti-consumption awareness; however, the different degrees of anti-consumption awareness will produce different degree of anti-consumption behaviour (Makri, Schlegelmilch, Mai & Dinhof, 2020). The lower anti-consumption awareness individual, for example, only heard about the concept of anti-consumption from the Internet or friends, does not have the same anti-consumption behaviour as the higher anti-consumption awareness individual, for instance, Minimalist. The classification of the degree of anti-consumption is essential for large socially fragmented areas like the Chinese sample. The second part of the questionnaire has twelve statements to test the anti-consumption level (Table 1).

Following the same logic, the anti-consumption behaviours can be divided into four dimensions: simplicity, global impact, anti-loyal consumer, market activities, as suggested by Iyer and Muncy (2009). Corresponding anti-consumption behaviour statements from a behavioural perspective are listed in Table 2.

For the simplified, the individuals focus on their own behaviours. Voluntary reduction of possessions leads to personal anti-consumption behaviour. And this behaviour is named as personal behaviour.

For the global impact, the individual focuses on societies and environmental problems, which affect their behaviour (Han, 2014). The protection of nature is also for humanity's long-term growth, and this behaviour is named environmental and societal behaviour (Alexander, 2011).

Anti-loyal consumers reduce the comparing consumption or concept consumption, and they give up the pursuit of specific brands (Chan, Zhang & Wang, 2006). The individual who pays attention to the brand's happiness, the less anti-consumption behaviour, is considered under the brand context. And this behaviour is named as against brand loyalty behaviour (Hoffmann & Müller, 2009).

For the market activities, it is hard to explain this point without a global impact. The reason that individual has anti-consumption behaviour sometimes is as same as the worldwide impact (Iyer & Muncy, 2009).

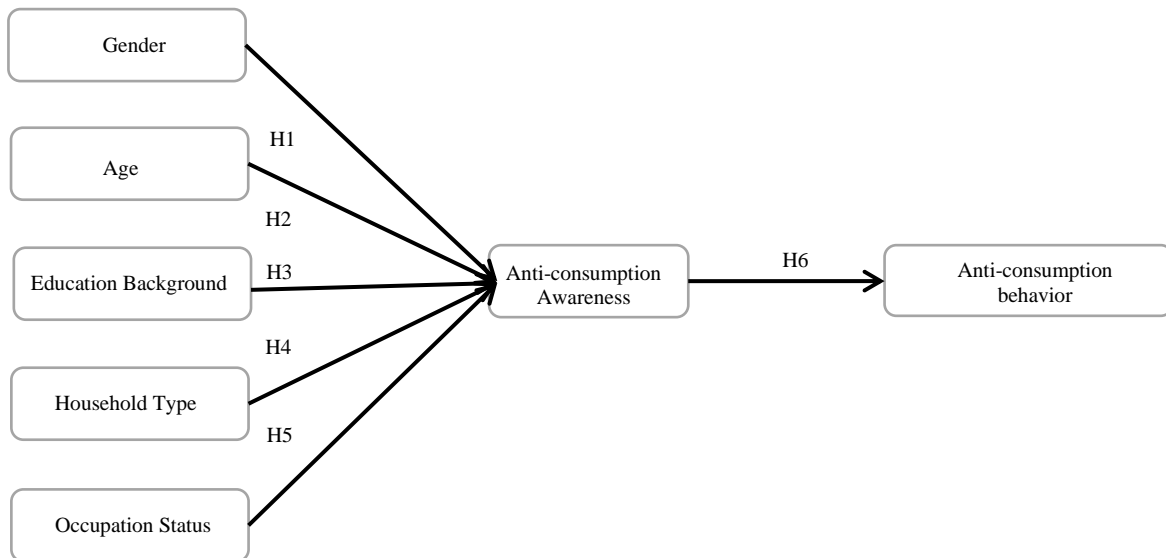


Figure 2 Anti-consumption and Anti-consumption Behaviour Hypotheses

From the above explanation, we can assume the relationship between consumer awareness and consumer behaviour. In the process of anti-consumption development, research on anti-consumption awareness, and anti-consumption behaviour in China is lacking (Ge, 2019). And the

match between awareness and behaviours has profound significance for studying Chinese consumption situation and future consumer behaviour trends.

For enriching the behaviour characteristics of the respondents, the questionnaire also adds consumer behaviour questions. The relationship between behaviour and awareness is considered. If the respondents have anti-consumption awareness, they will have anti-consumption behaviour. The positive relationship is assumed. And the following hypothesis is proposed.

H6: The individuals with anti-consumption awareness have positive effect on anti-consumption behaviour.

4. Methodology

4.1 Methodological Approaches to the Quantitative Study

This study consists in a quantitative study based on self-administered questionnaire to general residents of Hohhot. The questionnaire is based mainly on Makri, Schlegelmilch, Mai & Dinhof (2020), and Iyer & Muncy (2009). Since the questionnaire combines different statements from different pieces of literature, testing the reliability is an essential part. Therefore, previously to collecting the final sample two pre-test samples were collected in order to validate the questionnaire. Some statements were rewritten, and the measures' reliability was computed. All Cronbach's Alpha values should be over 0.7, as it shows that all the statements have acceptable or good reliability, and the respondents understand them well and in the same way.

4.2 Sampling Process

The questionnaire is composed of four parts.

The first part includes demographic information, in order to test most of the hypotheses. Those data will provide a whole picture of the necessary details on the people lived in Hohhot since last year, for instance, gender, age, education background, household type, occupation status, and income status.

There are seven age groups: *minus 20, 21—25, 26—30, 31—40, 41—50, 51—60, 60 and above*. There are two groups between 21—30 because this age is the critical moment of personal life attitude; it is full of changes. Subdividing this age group can better understand the changes in consumer awareness. Minus 20 and 60 and above groups do not need to sub divided further because attitudes and consciousness may be unstable if they are too young; for the elderly, their living conditions and values are relatively stable.

There are four educational background groups: *below undergraduate, undergraduate, graduate, and Ph.D. and above*.

These four groups are in line with the educational experience of China. The innovative demographic information is the size of the individual household. There include *living with Parents (or any other relatives), living with Parents (or any other elder relatives) and children, living alone, living with Partners, living with children, living with partners and children, living with non-partnership roommates and other*. Humans are social animals and are affected by the surrounding environment, but how to influence it is worth discussing.

There are six occupational status groups: *employed, self-employed, unemployed, student, retired, disabled, and others*. These groups are associated with the occupational status of China. The income state (¥/month) based on China and Hohhot's per capita GDP is divided into *inferior to 1314.75, 1314.75-2084.25, 2084.25-3269.2, 3296.2-6366.75, 6366.75, and Above*.

There are 12 items about anti-consumption awareness (Annex 1) considered as part 2. And 20 items about anti-consumption behaviours (Annex 2) considered as part 3. Those items all come from different research studies, both English and Chinese. A 7-point Likert scale is used to measure the items (1-strongly disagree, 2- disagree, 3-somewhat disagree, 4-neutral, 5-somewhat agree, 6-agree, 7-strongly agree).

The last part is about some consumption preferences, including the frequency of purchasing cloth or accessories, the frequency of buying hygiene or the cosmetic products, the frequency of investing in household products, the frequency of eating outside or ordering takeaway food, the most common ways of shopping and I always buy something on the sale season. It will help enrich demographic information. The daily purchases and consumption preferences can describe consumer behaviour objectively. Correspondingly, part 3 describes consumer behaviour subjectively.

4.3 Pre-Test

To adequately understand the viability of the following questionnaire, it was vital to undergo a pre-test. Its primary purpose was to know if the questions were correctly written and certified by every respondent, and to understand if each variable's measurements were reliable enough to proceed with the survey. Therefore, using mathematical methods, there was a need to identify the Cronbach's alphas and determine if they were above 0.7 (the statements should be acceptable). The first pre-test went on from the 2nd to the 4th of August 2020, registering 65 responses. The second pre-test went on from the 13th to the 15th of August 2020, registering 65 responses. The pre-tests found some misspelling or confusion like some misunderstandings pointed out from it. Some of these English expressions were eventually improved for the final questionnaire version.

At the end of the second pre-test, all the Cronbach's Alpha values are over 0.7 with 0.847 for anti-consumption awareness; 0.832 for personal behaviour, 0.856 for environmental and societal behaviour, 0.765 for against brand loyalty, and 0.898 for against industry behaviour. These values show that all the items have acceptable or good reliability (table 6).

4.4 Statistical Techniques for the Quantitative Data Analysis

In this section, there are four key analysis modules: Descriptive Analysis, Principal Component Analysis, Hypotheses' Tests, and Linear Regression Models. Here, these four analyses are briefly reviewed before conducted to the detailed data examination.

4.4.1 Descriptive Analysis

The statistical analysis begins with the Descriptive Analysis. In this module, the frequency and percentage of variables in the demographic background variables and consumption behaviour will be displayed. The Crosstable analysis between the demographic background variables and consumption behaviour variables can enrich the consumer group image.

4.4.2 Principal Component Analysis

The Principal Component Analysis is a reduction information technique. Its objective is to extract the necessary information from a group of correlated variables in a set of new variables called principal components.

Firstly, "Bartlett's Test of Sphericity" and "Kaiser-Meyer-Olkin" Measure of Sampling Adequacy (KMO)" are indicated to be concluded in this section. Regarding Bartlett's test, if the p-values are lower than 0.05, then the variables are assumed to be correlated. On the other hand, KMO should be higher than 0.5, indicating that factor analysis may be effectively used with the respective data.

Secondly, the Correlation Matrix is interpreted previously as the extracted components. The intention of this Matrix is to examine if the corresponding statements from a variable are positively correlated with each other. In this situation, a significant positive ($p > 0.5$) indicates that the analysed variable is remarkable in the final variables' contribution.

4.4.3 Hypotheses' Test

The consequent analysis is Hypotheses' Tests, main purpose is to test the first five conceptual hypotheses. Generally, these tests are segmented into the parametric test and non-parametric tests. It is better to use the parametric test because it tests hypotheses more accurately.

The ANOVA is a parametric test that aims to compare the means of a variable among three or more groups. It presents two assumptions that need to be verified before an ANOVA can be conducted. The assumptions can be described as follows.

1) According to the test for normality Kolmogorov Smirnov in each group with less than 30 cases before doing the test. If the group is not normality, the Kruskal Wallis test should be used. For the groups with more than 30 cases, the theorem of Limit Central can be assumed, which indicates no need for the normality test. The groups can be considered as having an approximately normal behaviour.

2) The next assumption is the Homogeneity of Variances. The Levene's test should be applied to test for the equality of variances. When the decision is rejected in this test, the non-parametric test should be used, the solution should be found in the Kruskal Wallis test and not the ANOVA test.

3) If there is normality and equality of variances, there is no problem, and ANOVA can be applied.

4) Multiple comparisons need to check the post hoc tests. During the ANOVA test, when H_0 is rejected, a Scheffe test or Tukey test is used when the previously ANOVA is applied, and Dunnett C's test is used when the Kruskal Wallis test is used.

4.4.4 Linear Regression Models

A Linear Regression Model Analysis as the last analysis is crucial and can be a conclusive chunk of the results.

The present study involves four models of multiple linear regressions, partitioned as follows:

Personal Behaviour = $\beta_0P + \beta_1P \cdot \text{anti-consumption awareness elementary} + \beta_2P \cdot \text{anti-consumption awareness advanced} + \epsilon_P$

Environmental and Society Behaviour = $\beta_0ES + \beta_1ES \cdot \text{anti-consumption awareness elementary} + \beta_2ES \cdot \text{anti-consumption awareness advanced} + \epsilon_{ES}$

Against Brand Loyalty Behaviour = $\beta_0ABL + \beta_1ABL \cdot \text{anti-consumption awareness elementary} + \beta_2ABL \cdot \text{anti-consumption awareness advanced} + \epsilon_{ABL}$

Against Industry Behaviour = $\beta_0AI + \beta_1AI \cdot \text{anti-consumption awareness elementary} + \beta_2AI \cdot \text{anti-consumption awareness advanced} + \epsilon_{AI}$

In those equations, anti-consumption awareness elementary and anti-consumption awareness advanced are independent variables, Personal Behaviour, Environmental and Society Behaviour, Against Brand Loyalty Behaviour, Against Industry Behaviour are anti-consumption behaviours, therefore they are considered dependent variables.

Besides, the R² and Adjusted R² should be calculated. These values help comprehend how much the respective independent variables on a particular linear regression model effectively explain the dependent variable. The Adjusted R Squared test is more accurate in this situation since there are multiple linear independent variables in the models, and the Adjusted R² will be more precise.

5. Finding

There are 483 answers collected in the final data from the 16th until the 23rd of August 2020. Since this dissertation mainly focused on the people who living in Hohhot (Q3. Have you lived in Hohhot full year now?). there are 395 valid answers (table 1). SPSS-26 is the data analysis software.

Table 1 Frequency of Respondents

	N
Have you lived in Hohhot full year now? (yes)	395
Have you lived in Hohhot full year now? (no)	88
total	483

5.1 Descriptive Analysis

5.1.1 Descriptive Analysis of demographics information

As Table 2 shows, there are 140 male respondents (accounted for 35.4%) and 255 female respondents (accounted for 64.6%).

Most of the respondents come from the 26—30 age group, accounting for 25.3% of all respondents. Two hundred and seven (207) respondents are undergraduate students, representing more than half of the total respondents.

The size of the household is evenly distributed relatively, 78 respondents, 19.7%, *living with parents (or any other relatives)*. 28 respondents, 7.1%, *living with parents (or any other elder relatives) and children*. 56 respondents, 14.2%, *living alone*. 79 (20%) *living with partners*. 23 (5.8%) *living with children*. 96(24.3%) *living with partners and children*. 26 (6.6%) *living with non-partnership roommates* and 9 (2.3%) *others* respectively.

Considering the occupation status, 204 respondents are employed (accounted for 51.6%), and the proportion of respondents whose occupation is a student ranked second having 67 respondents.

Although the GDP data is not equal to the wage level, most of the respondents' wage level is between 3296.2—6336.75(¥/month), with 18% of respondents having a monthly income below 1314.75(¥/month), which the proportion of occupations for students is the same.

Table 2 Demographic Statistics

	Frequency	Percent%
Gender		
Male	140	35.4
Female	255	64.6
Age groups		
Inferior to 20	19	4.8
21—25 years	73	18.5
26—30 years	100	25.3
31—40 years	63	15.9
41—50 years	84	21.3
51—60 years	50	12.7
60 and Above	6	1.5
Education background		
Less undergraduate	68	17.2
Undergraduate	207	52.4
Graduate	104	26.3
PhD and above	16	4.1
Household size		
Living with Parents (or any other relatives)	78	19.7
Living with Parents (or any other elder relatives) and children	28	7.1
Living Alone	56	14.2
Living with Partners	79	20.0
Living with children	23	5.8
Living with Partners and Children	96	24.3
Living with Non-partnership Roommates	26	6.6
Other	9	2.3
Occupational status		
Employed	204	51.6
Self-employment	25	6.3
Unemployed	23	5.8
Student	67	17.0
Retired	15	3.8
Disabled	2	0.5
Other	59	14.9
Income state (¥/month)		
Inferior to 1314.75	71	18.0
1314.75-2084.25	32	8.1
2084.25-3269.2	50	12.7
3296.2-6366.75	145	36.7
6366.75 and Above	97	24.6

5.1.2 Descriptive Analysis of consumption behaviour

One hundred forty-four (144) respondents (accounted for 36.5%) purchased cloth or accessories every three months, 80 respondents (accounted for 20.3%), 75 respondents (accounted for 19%).

More details can reference to table 3.

Table 3 Consumption Behaviour

	Frequency	Percent %
The frequency of the purchase the cloth or the accessories		
More Than Once a Month	34	8.6
Every Month	80	20.3
Every Three Month	144	36.5
Every Half a Year	75	19
Every Year	39	9.9
Less Than Once a Year	23	5.8
The frequency of the purchase the hygiene or the cosmetic products		
More Than Once a Month	117	29.6
Every Month	133	33.7
Every Three Month	75	19.0
Every Half a Year	37	9.4
Every Year	18	4.6
Less Than Once a Year	15	3.8
The frequency of the purchase the household products		
More Than Once a Month	5	1.3
Every Month	14	3.5
Every Three Month	31	7.8
Every Half a Year	36	9.1
Every Year	55	13.9
Less Than Once a Year	254	64.3
The frequency of eating outside or ordering takeaway food		
Everyday	11	2.8
Every Two Days	14	3.5
Half a Week	26	6.6
Every Week	51	12.9
Half a Month	50	12.7
Every Month	46	11.6
More Than Once a Month	173	43.8
Never	24	6.1
The most common way how you are shopping		
Physical Store	149	37.7
Online shopping	243	61.5
Leasehold	3	0.8
I always buy something on the sale season		
Strongly Disagree	10	2.3
Disagree	36	14.7
Somewhat Disagree	32	15.2
Neutral	190	48.1
Somewhat agree	60	8.1
Agree	58	9.1
Strongly Agree	9	2.3

The most frequent purchasing of hygiene or cosmetic products is every month, 133 respondents (accounted for 33.7%), with 117 respondents purchasing more than once a month

(accounted for 29.6%), which ranked the second, and 19% of respondents selected every three months.

There is a significant advance in purchasing household products more than once a month, 254 respondents (accounted for 64.3%). One hundred and seventy-three (173) respondents (account for 42.8%) eat outside or order takeaway food more than once a month, which is considerably higher than other options.

The most common way for shopping is online shopping, 243 respondents who represent 61.5% of the total, and only 3 people prefer leasehold.

Regarding whether to buy things during the selling season, 190 respondents (account for 48.1%) chose to remain neutral.

5.1.3 Consumer behaviour by demographic information

When considering demographic data and consumer preference data together, consumers' behaviours are more specific (Table 4). Since the variables have a lot of

After the Pearson Chi-square test, the Exact Sig. (2 sided) was considered. It is proved that women buy more frequently clothes and accessories than men ($\text{Sig}=0.000<\alpha=0.05$) and the frequency of buying the hygiene or the cosmetic products ($\text{Sig}=0.000<\alpha=0.05$). It is not surprising that gender affects the frequency of personal consumption of clothing accessories, hygiene, and cosmetic products.

There are significant differences among age groups in the frequency of purchasing cloth or accessories ($\text{Sig}=0.000<\alpha=0.05$). The influence of age groups on clothing accessories is also predictable.

There are significantly different among education backgrounds in the most common way of shopping ($\text{Sig}=0.000<\alpha=0.05$) and if buying something during the sale season ($\text{Sig}=0.000<\alpha=0.05$). How the educational background works on a common way of shopping and buying something on the sale season are worthy of in-depth exploration.

The household only has significant differences in the frequency of the purchase cloth or accessories ($\text{Sig}=0.000<\alpha=0.05$), which only affect individual's choice of clothes and accessories.

The occupational status groups have significant difference in the frequency of purchasing cloth or accessories, the frequency of buying the hygiene or the cosmetic products

(Sig=0.000< α =0.05), the frequency of eating outside (Sig=0.000< α =0.05) or ordering takeaway food (Sig=0.000< α =0.05) and buying something on the sale season (Sig=0.000< α =0.05). It can be seen that occupation status has an impact on many consumer behaviours.

From what discussed above, there is surprise at some points like the gender, age, household type and occupation status have more impact on clothes purchasing. However, the education background has impact on the way to shopping, which is unexpected. And the education background and occupational status impact the shopping on the sale season, which is a interesting part.

Table 4 CROSSTABLE Between Socio-demographic and Consumption Behaviour¹

	1	2	3	4	5	6
Gender	0.000	0.000	0.314	b*	1.000	0.192
Age groups	0.000			b*	b*	b*
Education background		b*	b*		0.000	0.000
Household size	0.000			b*	b*	b*
Occupational status	0.000	0.000		0.000	b*	0.000

5.2 Principal Component Analysis

5.2.1 PCA of anti-consumption awareness

There are 12 anti-consumption awareness descriptions at the beginning after the rotated component matrix Q8 (I do not feel happy whenever I consume.) was excluded from the PCA. The primary reason for those exclusions was, it occupied one component alone. When Q8 was removed, two components were extracted.

As noted through the attached Table 5, two dimensions were accepted with a total explained variance of 53.684% (30.810+22.873). The principal components were named as anti-consumption awareness elementary (composed by the items Q9, Q14, Q10, Q13, Q15, Q11, Q12), and anti-consumption awareness advanced (composed by the items Q17, Q16, Q18, Q19).

¹ 1- The frequency of the purchase the cloth or the accessories

2- The frequency of purchase the hygiene or the cosmetic products.

3- The frequency of purchase the household products.

4- The frequency of eating outside or ordering takeaway food.

5- The most common way how you are shopping.

6- I always buy something on the sale season.

This table list Chi-square, (α =0.05). Considering that there are many options for each variable, and there is a certain number of differences between the options, SPSS cannot get the values of part of the cross table. These number are values are replaced by b* and slashes.

For the Bartlett's test of sphericity, the variables should have a satisfactory correlation level between each other. Since, in this case, all components have Sig = 0.000 < 0.05 (Table 5& Annex 3), then the variables are effectively correlated with each other. Moreover, KMO=0.881 indicates perfect sample adequacy, thus the principal component analysis proceeded.

Table 5 PCA of Anti-consumption Awareness

Principal component	Variable	Loadings	Variance (%)	Cronbach's Alpha
Anti-consumption awareness elementary	9. I have been thought "consumerism" is not good for myself.	0.759	30.810	0.847
	14. I have been wanted to practice "anti-consumption" spontaneously.	0.733		
	10. I have been thought about changing my consumer behaviour.	0.727		
	13. I have been thought "anti-consumerism" would be good for myself.	0.716		
	15. I think I will recommend "anti-consumption" style to others.	0.649		
	11. I think the change ideology of "consumerism" is necessary in whole society.	0.618		
	12. I have been heard of the concept of "anti-consumption".	0.573		
Anti-consumption awareness advanced	17. I have been inquired the reasons for the boycott.	0.751	22.873	
	16. I have been heard about boycotting a brand or an industry.	0.715		
	18. I will consider the issue of sustainable development, when I shop some commodities.	0.676		
	19. I will tell others about the reasons why should boycott certain brand or industry.	0.667		

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.881/ Sig =0.00

5.2.2 PCA of anti-consumption awareness

There are 20 anti-consumption behaviour descriptions initially; after the rotated component matrix, four components were extracted. As noted through the attached Table 6, four dimensions were accepted with a total explained variance of 62.835% (18.609+15.742+15.092+13.455). The principal components were named as: against industry behaviour (composed by the items Q37, Q38, Q36, Q35, Q39), environment and society behaviour (composed by the items Q27, Q29, Q28, Q26, Q25), personal behaviour (composed by the items Q 21, Q23, Q22, Q20, Q24) and against brand loyalty behaviour (composed by the items Q33, Q30, Q31, Q32, Q24).

Table 6 PCA of Anti-consumption Behaviours

Principal component	Variable	Loadings	Variance (%)	Cronbach's Alpha
Against industry behaviour	37. I will call for the boycott of brands or industries which have some environmental problems.	0.810	18.609	0.832
	38. I will call for the boycott of brands or industries which have some social problems.	0.806		
	36. I will boycott the brands or industries which do negative social behaviour.	0.785		
	35. I will resist the brands or industries which cause the environmental degradation.	0.700		
	39. I will support local independent shops instead of chain industries. Because of the environmental and social friendly reason.	0.661		
Environment and society behaviour	27. I will pay attention to my carbon footprint.	0.776	15.742	0.856
	29. I will pay attention to the environmental protection and social sustainable development concept of the brand which I purchased.	0.722		
	28. I will request to reduce the unnecessary packaging when I am shopping.	0.702		
	26. I will voluntarily reduce consumption for environmental reasons.	0.667		
	25. Environmentally friendly products are my priority when the price is same.	0.626		
Personal behaviour	21. Even if I have enough money, I still choose to buy less.	0.757	15.029	0.765
	23. Even if I have enough money, I will stick to the frugal lifestyle.	0.722		
	22. I only choose to purchase new products when the old one is not working.	0.684		
	20. I will carefully consider what my needs before I buy a new product.	0.665		
	24. The quality of commodities is the priority for me.	0.595		
Against brand loyalty behaviour	33. I will not care about the sense of satisfaction that brands bring to me.	0.764	13.455	0.898
	30. Brands are not my priority when I go shopping.	0.693		
	31. I believe commodity is more valuable than brands itself.	0.675		
	32. I agree that luxury brands are the result of marketing rather than functional upgrades.	0.635		
	34. I do not agree that brands can distinguish classes.	0.594		

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.920/ Sig =0.00

For the Bartlett's test of sphericity, the variables should have a satisfactory correlation level between each other. Since, in this case, all components have $\text{Sig} = 0.000 < 0.05$ (Table 6 & Annex 4), then the variables are effectively correlated with each other. Moreover, $\text{KMO} = 0.920$ indicates perfect sample adequacy, and Then the principal component analysis may have proceeded.

5.3 Hypotheses' Tests

The population of the male with anti-consumption awareness is not different than the female. After the T-test, since the sample dimension is large (male=140, female=255) and the central limit theorem to ensure the approximate normality. For anti-consumption awareness elementary, the t-test $\text{Sig. (2-tailed)} = 0.506 > \alpha = 0.05$, and for the for anti-consumption awareness advanced, the t-test $\text{sig Sig. (2-tailed)} = 0.297 > \alpha = 0.05$ (Annex 5), so we do not reject H_0 in the two tests and conclude.

The anti-consumption awareness is lower for younger people than for older people. Since the sample dimension is different (Inferior to 20 = 19, 60 and Above= 6, both of them less than 30), Kolmogorov-Smirnov should be used to test normality, $\text{Sig} = 0.2 > \alpha = 0.05$ (Annex 6) in both anti-consumption awareness elementary and anti-consumption awareness advanced, H_0 does not reject, and it can be assumed that all the groups are within normality (Annex 7). For anti-consumption awareness elementary, the test of homogeneity of variance $\text{Sig} > \alpha = 0.05$ (Annex 8), so the ANOVA test should be used, which $\text{Sig} = 0.009$ (Annex 9) shows that there is difference among groups, but there are no significant different between each groups. There may have some problem when the data be collected. For anti-consumption awareness advanced, the test of homogeneity of variance about, $\text{Sig} < \alpha = 0.05$, so Kruskal-Wallis test should be used (Annex 10). Pairwise comparisons of 2 show (Annex 11) that age groups of inferior to 20 are lower anti-consumption awareness than groups of 51—60 ($\alpha = 0.024$) and 41—50 ($\alpha = 0.014$), 21—25 is lower than 51—60 ($\alpha = 0.038$) and 41—50 ($\alpha = 0.014$), 26—30 is lower than 41—50 ($\alpha = 0.026$). H_2 is not verified because it was hypothesized that younger people are more aware of anti-consumption than the older and we observe the contrary in the two tests and conclude.

The anti-consumption awareness is lower for higher educated people than for the people less educated. The sample dimension is different (Ph.D. and above= 16, less than 30), Kolmogorov-Smirnov should be used to test normality (Annex 12), $\text{Sig} > \alpha = 0.05$ in both anti-consumption awareness elementary and anti-consumption awareness advanced, H_0 does not reject, and it can

be assumed that all the groups are within normality (Annex 13). Since in the test of homogeneity of variance, $\text{Sig} = 0.543 > \alpha = 0.05$ in anti-consumption awareness elementary and $\text{Sig} = 0.461 > \alpha = 0.05$ anti-consumption awareness advanced, so ANOVA test should be used (Annex 14). For anti-consumption awareness elementary $\text{Sig} = 0.06$, there are significant different among groups and multiple comparisons (Annex 15) show that fewer undergraduate people are higher in anti-consumption awareness than graduate people ($\alpha = 0.003$). For anti-consumption awareness advanced, since $\text{Sig} = 0.56 > \alpha = 0.05$, so there is no different between groups H3 is not verified. The anti-consumption awareness is not lower for higher educated people than for the people less educated in the two tests and conclude.

The household type with less people has higher positive impact on the anti-consumption awareness than the other people. The sample dimension is different (Living with Parents (or any other elder relatives) and children= 28, Living with children=23, Living with Non-partnership Roommates= 26, other=9, less than 30). Kolmogorov-Smirnov (Annex 16) should be used to test normality, $\text{Sig} = 0.2 > \alpha = 0.05$ in both anti-consumption awareness elementary and anti-consumption awareness advanced, H_0 does not reject, and it can be assumed that all the groups are within normality (Annex 17). For anti-consumption awareness elementary, since the test of homogeneity of variance, $\text{Sig} > \alpha = 0.05$, the ANOVA test should be used, $\text{Sig} = 0.06 > \alpha = 0.05$, so there is no significant different among groups (Annex 18). For anti-consumption awareness advanced the test of homogeneity of variance, $\text{Sig} < \alpha = 0.05$ (Annex 19), so Kruskal-Wallis test should be used. Pairwise comparisons of 2 (Annex 20) show that other is higher anti-consumption awareness than living with children ($\alpha = 0.049$), other is higher than living with parents and children ($\alpha = 0.013$), other is higher than living with parents (or any other elder relatives) and children ($\alpha = 0.004$), living with parents (or any other relatives) is lower than living with parents and children ($\alpha = 0.001$), living with parents (or any other relatives) is lower than living with parents (or any other relatives) and children ($\alpha = 0.005$), living alone is higher than living with parents (or any other relatives) and children ($\alpha = 0.005$), living with parents is more elevated than living with parents (or any other relatives) and children ($\alpha = 0.047$). H4 is verified.

The occupation statuses do not have an impact on the anti-consumption awareness. The sample dimension is different (self-employment=25, unemployed= 23, retired= 15, disabled=2, less than 30), Kolmogorov-Smirnov should be used to test normality (Annex 21), $\text{Sig} = 0.2 > \alpha = 0.05$ in both anti-consumption awareness elementary and anti-consumption awareness advanced,

H0 does not reject, and it can be assumed that all the groups are within normality(Annex 22). Since in the test of homogeneity of variance, Sig= 0.664 > $\alpha= 0.05$ in anti-consumption awareness elementary and Sig= 0.254 > $\alpha= 0.05$ in anti-consumption awareness advanced, so ANOVA test (Annex 23) should be used. Sig= 0.156 > $\alpha= 0.05$ in anti-consumption awareness elementary and Sig= 0.968 > $\alpha= 0.05$ in anti-consumption awareness advanced. It can be concluded that the occupation situations do not have an impact on the anti-consumption awareness.H5 is not verified.

5.4 Linear Regression

The final analysis is the multiple linear regression models' analyses. Each linear regression model will be broken down to better understand which variables directly impact anti-consumption behaviours.

Personal Behaviour = $\beta_0P + \beta_1P*\text{anti-consumption awareness elementary} + \beta_2P*\text{anti-consumption awareness advanced} + \epsilon P$

The unstandardized coefficient is 0.099, Sig= 0.042 < $\alpha= 0.05$ in anti-consumption awareness elementary and the standardized coefficient is 0.246, Sig= 0.000 < $\alpha= 0.05$ in anti-consumption awareness advanced (Annex 25), it shows that anti-consumption awareness has a highly positive impact on anti-consumption (personal behaviour). Considering the R Squared value, 7.9% of the dependent variable's (anti-consumption behaviours) variance, is explained by the other independent ones (Annex 24). So, the hypothesis H6: The individual's anti-consumption awareness has positive effect on the anti-consumption behaviour (Personal Behaviour) is verified.

Environmental and Society Behaviour = $\beta_0ES + \beta_1ES*\text{anti-consumption awareness elementary} + \beta_2ES*\text{anti-consumption awareness advanced} + \epsilon ES$

The unstandardized coefficient is 0.210, Sig= 0.000 < $\alpha= 0.05$ in anti-consumption awareness elementary and the standardized coefficient is 0.337, Sig= 0.000 < $\alpha= 0.05$ in anti-consumption awareness advanced results (Annex 27) show that anti-consumption awareness has a highly positive impact on anti-consumption (environment and society behaviour). Considering the R Squared value, 15.8% of the dependent variable's (anti-consumption behaviours) variance (Annex 26), is explained by the other independent ones. So, H7: The individual's anti-

consumption awareness has positive effect on the anti-consumption behaviour (Environmental and Society Behaviour) is verified.

Against Brand Loyalty Behaviour = $\beta_0\text{ABL} + \beta_1\text{ABL} * \text{anti-consumption awareness elementary} + \beta_2\text{ABL} * \text{anti-consumption awareness advanced} + \epsilon\text{ABL}$

The standardized coefficient is 0.234, Sig= 0.000 < $\alpha= 0.05$ in anti-consumption awareness elementary and the unstandardized coefficient is 0.114, Sig= 0.000 < $\alpha= 0.05$ in anti-consumption awareness advanced (Annex 29). This shows that anti-consumption awareness has a highly positive impact on anti-consumption (against brand loyalty behaviour). Considering the Adjusted R Squared value, 6.8% of the dependent variable's (anti-consumption behaviours) variance (Annex 28), is explained by the other independent ones. So, H8: The individual's anti-consumption awareness has positive effect on the anti-consumption behaviour (Against Brand Loyalty Behaviour) is verified.

Against Industry Behaviour = $\beta_0\text{AI} + \beta_1\text{AI} * \text{anti-consumption awareness elementary} + \beta_2\text{AI} * \text{anti-consumption awareness advanced} + \epsilon\text{AI}$

The unstandardized coefficient is 0.083, Sig= 0.092 > $\alpha= 0.05$ in anti-consumption awareness elementary and the unstandardized coefficient is 0.277, Sig= 0.000 < $\alpha= 0.05$ in anti-consumption awareness advanced (Annex 31), it shows that anti-consumption awareness advanced has a highly positive impact on anti-consumption (against industry behaviour), but the anti-consumption awareness elementary does not have impact on anti-consumption (against industry behaviour). Considering the Adjusted R Squared value, 7.9% of the dependent variable's (anti-consumption behaviours) variance (Annex 30), is explained by the other independent ones. So, H9: The individual's anti-consumption awareness has positive effect on the anti-consumption behaviour (Against Industry Behaviour is partially verified).

6. Conclusion

Based on the results and discussions presented above, some hypotheses did not turn out to be as what was originally thought. The gender has no difference in anti-consumption awareness. Although the appearances attract women, men are obsessed with functional products (Huneke, 2005). And it is proven that there are significant differences between genders in the frequency of purchasing cloth or accessories and the frequency of purchasing hygiene or cosmetic products. It can be understood that anti-consumption awareness and shopping tendency are not opposites and could exist simultaneously. Anti-consumption awareness is more like a guide to consumer behaviour, but not the whole reason for consumption. In another words, it is also proved that anti-consumption is not an opposite of consumption. Marketing or product design may consider the gender a lot, for instance the creative advertisements always attract people's attention, however, the anti-consumption research more focus on the individual's consumption concept, how they thinking about consumption and why not purchase a products. It is a deeper analysis of consumer behaviour.

The population of younger people with anti-consumption awareness is lower than older people. Since the minimalist lifestyle is trendy in recent years, young people are more sensitive to new information (Liang, 2017). However, older people do not want to change their original living habits (Joy-Yana Thurner, 2019). Through data analysis, it can be inferred that the elderly (age 41~60) has always been living in a frugal way. The material is scarcity before 1979, compared with the after. The people who really suffer from that time are extraordinary caution about consumption, and this is continued, even after their income is increase and products are abundant (Wu, 2012), compared with young people (age 20~30), who born in an era of economic prosperity in china, and because of the only child policy, individuals can enjoy sufficient material resources and wealth support from their parents. Interestingly, in terms of age, people with anti-consumption awareness should be at the same age as the parents of young people with low anti-consumption awareness.

Fewer undergraduate people have higher anti-consumption awareness than graduate people, which is quite surprising. Although highly educated people are more readily to accept the concept of anti-consumption and willing to practice (Ma, 2015), the educational background and anti-consumption awareness research has been lacking. It is another evidence shows that the economic levels have inevitable influence on the anti-consumption awareness and behaviours.

The household type has an impact on the anti-consumption awareness. Especially, those who live with elders and children have weak anti-consumption awareness. The children do not form their own spending habits and are curious about new things, so parents must spend extra. For the elderly, especially those with physical illness, when they live with their children, it increases the extra spending of the family. More people living in the space, the less anti-consumption awareness, however, it is another story, individuals living with the roommates, since the roommates have less impact on each other's life. From the above, it can assume that independence of live are important to individual's anti-consumption behaviours.

The occupation statuses do not have an impact on the anti-consumption awareness. Which is different from the literature on voluntary simplicity (Zavestoski, 2002). Anti-consumption awareness, in both elementary and advanced levels, has a positive effect on the anti-consumption behaviour in personal behaviour, environmental and society behaviour, against brand loyalty behaviour. But anti-consumption awareness elementary does not have a positive impact on against industry behaviour. Not surprisingly, because of the industry's anti-consumer behaviour, apart from media exposure, consumers need to deeply analyse the brands and industries, and the globalization trend has also increased the difficulty of understanding. For beginners with anti-consumption awareness, it does require time.

In general, through the above discussion, the current anti-consumption consciousness of Chinese society has sprouted. However, as we get older, there is a tendency to increase anti-consumption awareness. The focus on anti-consumption is not intended to call for aimless reductions in consumer goods, but through more rational consumption, which has a positive impact on individual, society, and the environment.

After this dissertation, for individuals, each respondent has a chance to reconsider their consumption behaviours when answering the questionnaire which may ignite their anti-consumption awareness and enhance their anti-consumption behaviours consciously. The outcome can not only illustrate the anti-consumption level in China, and pave the way for the further research in this field, but also can provide an indicator to companies that are interested in modifying their products for better environmental protection.

7. Further Research

Firstly, one suggested for the age groups analysis is to consider the impact of childhood experience on anti-consumption awareness. For example, the elder people who with higher anti-consumption behaviours are the people living in the age of material scarcity. Since in terms of age, people with anti-consumption awareness should be at the same age as the parents of young people with low anti-consumption awareness, if that the parents do not impact on their children's consumption behaviours, or if the society environment is more effective than the parents' instruction?

Secondly, previous literature studies tend to exclude the impact of income on anti-consumption, but in fact, through this study, it is difficult to ignore the impact of income on personal behaviour, whether from the perspective of employment status or education background. In fairness, income factors should be included in anti-consumption research, for example, the market positioning of commodities will consider the income of consumers, why anti-consumption research not?

Thirdly, future research should consider the gap between other occupations, rather than considering employment status. The relationship between occupation and anti-consumption comes from the influence of occupational environment and work content on individuals. With the development of the Internet, it is difficult for individuals to get out of touch with society, so employment status should pay less attention.

Lastly, there are relatively few literature studies on anti-consumption awareness and anti-consumption behaviour in the Chinese market. Future research should consider the whole process of anti-consumption, awareness behaviour, and the results (Makri, Schlegelmilch, Mai, and Dinhof's, 2020). Influencing factors in different cultures, countries will enrich the anti-consumption concepts. And in consideration of Chinese national conditions and the limited number of respondents, further research is needed.

8. Limitation

This research does have some limitations that present opportunities for future research. First, data collection happened during the COVID-19 pandemic, which altered many people's lifestyles. Second, there are not enough people under investigation. Although Hohhot was chosen according to GDP, attention should have been paid to the differences in the culture of the north from that in the south in China. Finally, the items of questionnaires should go through more testing and continuous improvement.

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Annexes A
Annex 1 Anti-consumption Awareness Statements

Statement	Source
I do not feel happy every time when I consume.	Zavestoski (2002)
I have been thought "consumerism" is not good for myself.	Iyer& Muncy (2015)
I have been thought about changing my consumer behaviour.	Oral& Thurner (2019)
I think the change ideology of "consumerism" is necessary in whole society.	Ma (2015)
I have been heard of the concept of "anti-consumption".	Chen& Kuang (2015)
I have been thought "anti-consumerism" would be good for myself.	Meissner (2019)
I have been wanted to practice "anti-consumption" spontaneously.	Iyer& Muncy (2009)
I think I will recommend "anti-consumption" style to others.	Chen& Kuang (2015)
I have been heard about boycotting a brand or an industry.	Iyer& Muncy (2009)
I have been inquired the reasons for the boycott.	Hoffmann& Müller (2009)
I will consider the issue of sustainable development when I shop some commodities.	Black (2010)
I will tell others about the reasons why should boycott certain brand or industry.	Arnould& Thompson (2005)

Annex 2 Anti-consumption Behaviour Statements

Statement	Source
Personal behaviour	
I will carefully consider what my needs before I buy a new product.	Iyer& Muncy (2009)
Even if I have enough money, I still choose to buy less.	Meissner (2019)
I only choose to purchase new products when the old one is not working.	Iyer& Muncy (2009)
Even if I have enough money, I will stick to the frugal lifestyle.	Wu (2012)
The quality of commodities is the priority for me.	Lai (2018)
Society behaviour	
Environmentally friendly products are my priority when the price is same.	Mackay (2008)
I will voluntarily reduce consumption for environmental reasons.	Iyer& Muncy (2019)
I will pay attention to my carbon footprint.	Cherrier, Black & Lee (2011)
I will request to reduce the unnecessary packaging when I am shopping.	Chen& Kuang (2015)
I will pay attention to the environmental protection and social sustainable development concept of the brand which I purchased.	Ge (2019)
Against brand loyalty behaviour	
Brands are not my priority when I go shopping.	Rodriguez (2017)
I believe commodity is more valuable than brand itself.	Meissner (2019)
I agree that luxury brands are the result of marketing rather than functional upgrades.	Podoshen, Li& Zhang, (2010)
I will not care about the sense of satisfaction that brands bring to me.	Iyer& Muncy (2015)
I do not agree that brands can distinguish classes.	Oral& Thurner (2019)
Against Industry behaviour	
I will resist the brands or industries which cause the environmental degradation.	Li (2001)
I will boycott the brands or industries which do negative social behaviour.	Zhang& Ma (2019)
I will call for the boycott of brands or industries which have some environmental problems.	Li (2001)
I will call for the boycott of brands or industries which have some social problems.	Zhang& Ma (2019)
I will support local independent shops instead of chain industries. Because of the environmental and social friendly reason.	Iwata (1999)

Annex 3 PCA Analysis of Anti-consumption Awareness

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.881
Bartlett's Test of Sphericity	Approx. Chi-Square	1428.445
	df	55
	Sig.	.000

Annex 4 PCA Analysis about Anti-consumption Behaviours

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	4093.256
	Df	190
	Sig.	.000

Annex 5 Independent Samples Test of Gender

		Independent Samples Test				
		Levene's Test for equality of variances				
		F	Sig	t	df	Sig. (2-tailed)
Anti-consumption awareness elementary	Equal variances assumed	3.696	.055	.665	393	.506
	Equal variances not assumed			.629	243.502	.530
Anti-consumption awareness advanced	Equal variances assumed	2.220	.137	-1.044	393	.297
	Equal variances not assumed			-.999	252.008	.319

Annex 6 Test of Age Groups

Test for Normality				
		Kolmogorov-Smirnov ^a		
	2. Your age:	Statistic	df	Sig.
Anti-consumption awareness elementary	Inferior to 20	.162	19	.200*
	21—25	.114	73	.200*
	26—30	.036	100	.200*
	31—40	.072	63	.200*
	41—50	.070	84	.200*
	51—60	.084	50	.200*
	60 and Above	.199	6	.200*
Anti-consumption awareness advanced	Inferior to 20	.141	19	.200*
	21—25	.065	73	.200*
	26—30	.070	100	.200*
	31—40	.096	63	.200*
	41—50	.122	84	.200*
	51—60	.106	50	.200*
	60 and Above	.183	6	.200*

Annex 7 Test of Age Groups

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Anti-consumption awareness elementary	Based on Mean	.480	6	388	.823
	Based on Median	.481	6	388	.823
	Based on Median and with adjusted df	.481	6	382.103	.823
	Based on trimmed mean	.471	6	388	.830
Anti-consumption awareness advanced	Based on Mean	2.387	6	388	.028
	Based on Median	2.442	6	388	.025
	Based on Median and with adjusted df	2.442	6	357.237	.025
	Based on trimmed mean	2.432	6	388	.026

Annex 8 Test of Age Groups in Anti-consumption Awareness Elementary

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Anti-consumption awareness elementary	Between Groups	16.804	6	2.801	2.881	.009
	Within Groups	377.196	388	.972		
	Total	394.000	394			
Anti-consumption awareness advanced	Between Groups	13.135	6	2.189	2.230	.040
	Within Groups	380.865	388	.982		
	Total	394.000	394			

Annex 9 Test of Age Groups in Anti-consumption Awareness Elementary

Multiple Comparisons

Dependent Variable	(I) 2. Your age:	(J) 2. Your age:	Mean		Sig.	95% Confidence Interval		
			Difference (I-J)	Std. Error		Lower Bound	Upper Bound	
Anti-consumption awareness elementary	Tukey HSD	Inferior to 20	21—25	.44360107	.25393551	.585	-.3090346	1.1962367
			26—30	.44328122	.24675413	.551	-.2880697	1.1746321
			31—40	.47013470	.25806410	.534	-.2947376	1.2350070
			41—50	.06806077	.25047819	1.000	-.6743278	.8104493
			51—60	.06654251	.26572382	1.000	-.7210324	.8541174
			60 and Above	-.35028325	.46172706	.989	-	1.0182227
								1.7187892
		21—25	Inferior to 20	-.44360107	.25393551	.585	-	.3090346
								1.1962367
			26—30	-.00031986	.15178518	1.000	-.4501937	.4495540
			31—40	.02653363	.16955301	1.000	-.4760020	.5290693
			41—50	-.37554030	.15776712	.210	-.8431439	.0920633
			51—60	-.37705857	.18099804	.365	-.9135160	.1593988
			60 and Above	-.79388432	.41873980	.484	-	.4472123
								2.0349809
		26—30	Inferior to 20	-.44328122	.24675413	.551	-	.2880697
								1.1746321
			21—25	.00031986	.15178518	1.000	-.4495540	.4501937
			31—40	.02685349	.15859565	1.000	-.4432058	.4969128
			41—50	-.37522044	.14592746	.138	-.8077327	.0572918
			51—60	-.37673871	.17077661	.295	-.8829009	.1294235
			60 and Above	-.79356447	.41442415	.472	-	.4347411
								2.0218700
		31—40	Inferior to 20	-.47013470	.25806410	.534	-	.2947376
								1.2350070
			21—25	-.02653363	.16955301	1.000	-.5290693	.4760020
			26—30	-.02685349	.15859565	1.000	-.4969128	.4432058
			41—50	-.40207393	.16432987	.182	-.8891288	.0849809
		51—60	-.40359220	.18674617	.319	-.9570864	.1499020	
		60 and Above	-.82041796	.42125629	.450	-	.4281372	
							2.0689732	
	41—50	Inferior to 20	-.06806077	.25047819	1.000	-.8104493	.6743278	
		21—25	.37554030	.15776712	.210	-.0920633	.8431439	
		26—30	.37522044	.14592746	.138	-.0572918	.8077327	
		31—40	.40207393	.16432987	.182	-.0849809	.8891288	
		51—60	-.00151827	.17611466	1.000	-.5235019	.5204653	
		60 and Above	-.41834402	.41665225	.953	-	.8165654	
							1.6532534	

51—60	Inferior to 20	-.06654251	.26572382	1.000	-.8541174	.7210324
	21—25	.37705857	.18099804	.365	-.1593988	.9135160
	26—30	.37673871	.17077661	.295	-.1294235	.8829009
	31—40	.40359220	.18674617	.319	-.1499020	.9570864
	41—50	.00151827	.17611466	1.000	-.5204653	.5235019
	60 and Above	-.41682576	.42599170	.958	-	.8457647
					1.6794162	
60 and Above	Inferior to 20	.35028325	.46172706	.989	-	1.7187892
					1.0182227	
	21—25	.79388432	.41873980	.484	-.4472123	2.0349809
	26—30	.79356447	.41442415	.472	-.4347411	2.0218700
	31—40	.82041796	.42125629	.450	-.4281372	2.0689732
	41—50	.41834402	.41665225	.953	-.8165654	1.6532534
	51—60	.41682576	.42599170	.958	-.8457647	1.6794162

Annex 10 Test of Age Groups in Anti-consumption Awareness Advanced

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Anti-consumption awareness advanced is the same across categories of 2. Your age:.	Independent-Samples Kruskal-Wallis Test	.026	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

Annex 11 Test of Age Groups Anti-consumption Awareness Advanced

Pairwise Comparisons of Your Age

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig. ^a
60 and Above- Inferior to 20	1.825	53.464	.034	.973	1.000
60 and Above-21—25	27.947	48.487	.576	.564	1.000
60 and Above-26—30	35.437	47.987	.738	.460	1.000
60 and Above-31—40	58.865	48.778	1.207	.228	1.000
60 and Above-51—60	71.357	49.326	1.447	.148	1.000
60 and Above-41—50	72.988	48.245	1.513	.130	1.000
Inferior to 20-21—25	-26.123	29.404	-.888	.374	1.000
Inferior to 20-26—30	-33.612	28.572	-1.176	.239	1.000
Inferior to 20-31—40	-57.041	29.882	-1.909	.056	1.000
Inferior to 20-51—60	-69.532	30.769	-2.260	.024	.500
Inferior to 20-41—50	-71.164	29.003	-2.454	.014	.297
21—25-26—30	-7.489	17.575	-.426	.670	1.000
21—25-31—40	-30.918	19.633	-1.575	.115	1.000
21—25-51—60	-43.409	20.958	-2.071	.038	.805
21—25-41—50	-45.041	18.268	-2.466	.014	.287
26—30-31—40	-23.428	18.364	-1.276	.202	1.000
26—30-51—60	-35.920	19.774	-1.816	.069	1.000
26—30-41—50	-37.551	16.897	-2.222	.026	.551
31—40-51—60	-12.492	21.624	-.578	.563	1.000
31—40-41—50	-14.123	19.028	-.742	.458	1.000
51—60-41—50	1.631	20.393	.080	.936	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Annex 12 Test of Education Background

Test for Normality

		Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
4. Your educational background (including the current highest academic qualification):				
Anti-consumption awareness elementary	Undergraduate	.055	207	.200*
	Graduate	.073	104	.200*
	PhD and Above	.088	16	.200*
	Other	.067	68	.200*
Anti-consumption awareness advanced	Undergraduate	.041	207	.200*
	Graduate	.061	104	.200*
	PhD and Above	.143	16	.200*
	Other	.100	68	.200*

Annex 13 Test of Education Background

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Anti-consumption awareness elementary	Based on Mean	.716	3	391	.543
	Based on Median	.707	3	391	.548
	Based on Median and with adjusted df	.707	3	384.657	.548
	Based on trimmed mean	.709	3	391	.547
Anti-consumption awareness advanced	Based on Mean	.863	3	391	.461
	Based on Median	.889	3	391	.447
	Based on Median and with adjusted df	.889	3	382.302	.447
	Based on trimmed mean	.877	3	391	.453

Annex 14 Test of Education Background

ANOVA Test

		Sum of Squares	df	Mean Square	F	Sig.
Anti-consumption awareness elementary	Between Groups	12.441	3	4.147	4.249	.006
	Within Groups	381.559	391	.976		
	Total	394.000	394			
Anti-consumption awareness advanced	Between Groups	2.067	3	.689	.687	.560
	Within Groups	391.933	391	1.002		
	Total	394.000	394			

Annex 15 Test of Education Background in Anti-consumption Awareness Elementary

		Multiple Comparisons				95% Confidence Interval		
		(I) 4. Your educational background (including the current highest academic qualification):	(J) 4. Your educational background (including the current highest academic qualification):	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Anti-consumption awareness elementary	Tukey HSD	Undergraduate	Graduate	.26198578	.11873290	.123	-.0443585	.5683301
			PhD and Above	.16267110	.25633033	.921	-.4986901	.8240323
			Other	-.27623856	.13807640	.189	-.6324913	.0800141
		Graduate	Undergraduate	-.26198578	.11873290	.123	-.5683301	.0443585
			PhD and Above	-.09931467	.26528133	.982	-.7837705	.5851411
			Other	-.53822434*	.15405856	.003	-.9357128	-.1407359
	Scheffe	PhD and Above	Undergraduate	-.16267110	.25633033	.921	-.8240323	.4986901
			Graduate	.09931467	.26528133	.982	-.5851411	.7837705
			Other	-.43890966	.27448456	.380	-	.2692915
		Other	Undergraduate	.27623856	.13807640	.189	-.0800141	.6324913
			Graduate	.53822434*	.15405856	.003	.1407359	.9357128
			PhD and Above	.43890966	.27448456	.380	-.2692915	1.1471108
Anti-consumption awareness elementary	Tukey HSD	Undergraduate	Graduate	.26198578	.11873290	.184	-.0713808	.5953524
			PhD and Above	.16267110	.25633033	.940	-.5570281	.8823703
			Other	-.27623856	.13807640	.263	-.6639160	.1114388
		Graduate	Undergraduate	-.26198578	.11873290	.184	-.5953524	.0713808
			PhD and Above	-.09931467	.26528133	.987	-.8441456	.6455163
			Other	-.53822434*	.15405856	.007	-.9707749	-.1056738
	Scheffe	PhD and Above	Undergraduate	-.16267110	.25633033	.940	-.8823703	.5570281
			Graduate	.09931467	.26528133	.987	-.6455163	.8441456
			Other	-.43890966	.27448456	.466	-	.3317612
		Other	Undergraduate	.27623856	.13807640	.263	-.1114388	.6639160
			Graduate	.53822434*	.15405856	.007	.1056738	.9707749
			PhD and Above	.43890966	.27448456	.466	-.3317612	1.2095805

*. The mean difference is significant at the 0.05 level.

Annex 16 Test of the Size of Household

Test for Normality

	5. The size of your household:	Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
Anti-consumption awareness elementary	Living with Parents (or any other relatives)	.077	78	.200*
	Living with Parents (or any other elder relatives) and children	.104	28	.200*
	Living Alone	.121	56	.060
	Living with Partners	.102	79	.061
	Living with children	.176	23	.063
	Living with Partners and Children	.082	96	.112
	Living with Non-partnership Roommates	.095	26	.200*
	other	.146	9	.200*
Anti-consumption awareness advanced	Living with Parents (or any other relatives)	.070	78	.200*
	Living with Parents (or any other elder relatives) and children	.182	28	.089
	Living Alone	.092	56	.200*
	Living with Partners	.084	79	.200*
	Living with children	.132	23	.200*
	Living with Partners and Children	.075	96	.200*
	Living with Non-partnership Roommates	.083	26	.200*
	other	.259	9	.082

Annex 17 Test of the Size of Household

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Anti-consumption awareness elementary	Based on Mean	.785	7	387	.600
	Based on Median	.731	7	387	.646
	Based on Median and with adjusted df	.731	7	372.151	.646
	Based on trimmed mean	.778	7	387	.606
Anti-consumption awareness advanced	Based on Mean	2.296	7	387	.027
	Based on Median	2.180	7	387	.035
	Based on Median and with adjusted df	2.180	7	363.757	.035
	Based on trimmed mean	2.275	7	387	.028

Annex 18 Test of the Size of Household

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Anti-consumption awareness elementary	Between Groups	13.460	7	1.923	1.956	.060
	Within Groups	380.540	387	.983		
	Total	394.000	394			
Anti-consumption awareness advanced	Between Groups	16.848	7	2.407	2.470	.017
	Within Groups	377.152	387	.975		
	Total	394.000	394			

Annex 19 Test of the Size of Household in Anti-consumption Awareness Advanced

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Anti-consumption awareness advanced is the same across categories of 5. The size of your household.	Independent-Samples Kruskal-Wallis Test	.018	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

Annex 20 Test of the Size of Household

Pairwise Comparisons of the Size of Your Household						
Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig. ^a	
other-Living with children	88.551	44.888	1.973	.049	1.000	
other-Living with Partners and Children	99.380	39.800	2.497	.013	.351	
other-Living with Parents (or any other elder relatives) and children	124.869	43.747	2.854	.004	.121	
Living with Parents (or any other relatives)-Living with Partners and Children	-45.015	17.403	-2.587	.010	.271	
Living with Parents (or any other relatives)-Living with Parents (or any other elder relatives) and children	-70.504	25.152	-2.803	.005	.142	
Living Alone- Living with Parents (or any other elder relatives) and children	61.759	26.425	2.337	.019	.544	
Living with Partners-Living with Parents (or any other elder relatives) and children	49.795	25.110	1.983	.047	1.000	

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Annex 21 Test of Occupation Status

Test for Normality

	6. Your occupational status:	Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
Anti-consumption awareness elementary	Employed	.048	204	.200*
	Self-employment	.081	25	.200*
	Unemployed	.096	23	.200*
	Student	.060	67	.200*
	Retired	.108	15	.200*
	Disabled	.260	2	.
	Other	.126	59	.200*
Anti-consumption awareness advanced	Employed	.054	204	.200*
	Self-employment	.145	25	.189
	Unemployed	.112	23	.200*
	Student	.066	67	.200*
	Retired	.120	15	.200*
	Disabled	.260	2	.
	Other	.124	59	.200*

Annex 22 Test of Occupation Status

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Anti-consumption awareness elementary	Based on Mean	.683	6	388	.664
	Based on Median	.674	6	388	.671
	Based on Median and with adjusted df	.674	6	380.214	.671
	Based on trimmed mean	.677	6	388	.668
Anti-consumption awareness advanced	Based on Mean	1.304	6	388	.254
	Based on Median	1.355	6	388	.232
	Based on Median and with adjusted df	1.355	6	372.524	.232
	Based on trimmed mean	1.331	6	388	.242

Annex 23 Test of Occupation Status

ANOVA Test						
		Sum of Squares	df	Mean Square	F	Sig.
Anti-consumption awareness elementary	Between Groups	9.320	6	1.553	1.567	.156
	Within Groups	384.680	388	.991		
	Total	394.000	394			
Anti-consumption awareness advanced	Between Groups	1.371	6	.229	.226	.968
	Within Groups	392.629	388	1.012		
	Total	394.000	394			

Annex 24 Linear Regression of Personal Behaviour

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.282 ^a	.079	.075	.96191829	2.093

a. Predictors: (Constant), Anti-consumption awareness advanced, Anti-consumption awareness elementary

b. Dependent Variable: Anti-consumption behaviour (personal behaviour)

Annex 25 Linear Regression of Personal Behaviour

Coefficients

Model		Unstandardized Coefficients		Unstandardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-3.331E-17	.048		.000	1.000		
	Anti-consumption awareness elementary	.099	.048	.099	2.040	.042	1.000	1.000
	Anti-consumption awareness advanced	.264	.048	.264	5.446	.000	1.000	1.000

a. Dependent Variable: Anti-consumption behaviour (personal behaviour)

Annex 26 Linear Regression of Environment and Society Behaviour

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.397 ^a	.158	.154	.92002043	1.894

- a. Predictors: (Constant), Anti-consumption awareness advanced, Anti-consumption awareness elementary
- b. Dependent Variable: Anti-consumption behaviour (environment and society behaviour)

Annex 27 Linear Regression of Environment and Society Behaviour

Coefficients

Model		Unstandardized Coefficients		Unstandardized Coefficient	t	Sig.	Collinearity Statistics	
		B	Std. Error	s			Tolerance	VIF
1	(Constant)	7.012E-17	.046		.000	1.000		
	Anti-consumption awareness elementary	.210	.046	.210	4.529	.000	1.000	1.000
	Anti-consumption awareness advanced	.337	.046	.337	7.278	.000	1.000	1.000

- a. Dependent Variable: Anti-consumption behaviour (environment and society behaviour)

Annex 28 Linear Regression of Against Brand Loyalty Behaviour

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.260 ^a	.068	.063	.96802425	2.107

a. Predictors: (Constant), Anti-consumption awareness advanced, Anti-consumption awareness elementary

b. Dependent Variable: Anti-consumption behaviour (against brand loyalty behaviour)

Annex 29 Linear Regression of Against Brand Loyalty Behaviour

Coefficients

Model		Unstandardized Coefficients		Unstandardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-2.243E-17	.049		.000	1.000		
	Anti-consumption awareness elementary	.234	.049	.234	4.797	.000	1.000	1.000
	Anti-consumption awareness advanced	.114	.049	.114	2.334	.020	1.000	1.000

a. Dependent Variable: Anti-consumption behaviour (against brand loyalty behaviour)

Annex 30 Linear Regression of Against industry behaviour

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.288 ^a	.083	.079	.95992804	1.892

a. Predictors: (Constant), Anti-consumption awareness advanced, Anti-consumption awareness elementary

b. Dependent Variable: Anti-consumption behaviour (against industry behaviour)

Annex 31 Linear Regression of Against industry behaviour

Coefficients

Model		Unstandardized Coefficients		Unstandardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	8.261E-17	.048		.000	1.000		
	Anti-consumption awareness elementary	.082	.048	.082	1.688	.092	1.000	1.000
	Anti-consumption awareness advanced	.277	.048	.277	5.721	.000	1.000	1.000

a. Dependent Variable: Anti-consumption behaviour (against industry behaviour)

Annexes B
QUESTIONNAIRE

The Match of "Anti-consumption Awareness" and "Anti-consumption Behaviour"

This questionnaire is an investigation on the "anti-consumption awareness" and "anti-consumption behaviour" of contemporary residents in China. Consumerism culture is everywhere nowadays, at the same time, the concept of "anti-consumption" is gradually becoming popular in society. This questionnaire focuses on the degree of "anti-consumption awareness" and its impact on consumer behaviour in daily life. It does not matter whether your answer is right or wrong, however, we are looking forward to your real feedback. Thank you for your participation. We will keep your answers completely privacy.

Part One: Demographic background

1. Your gender:

Male Female

2. Your age:

20 and under 21—25 26—30 31—40 41—50 51—60 Over 60

3. Have you lived in Hohhot full year now?

Yes No

4. Your educational background (including the current highest academic qualification):

Undergraduate Graduate PhD and Above Other

5. The size of your household:

Living with Parents (or any other relatives)

Living with Parents (or any other elder relatives) and children

Living Alone

Living with Partners

Living with children

Living with Partners and Children

Living with Non-partnership Roommates

6. Your occupational status:

Employed

Self-employment

Unemployed

Student

Retired

Disabled

Other

7. Your income state which include all types of income (¥/month):

Inferior to 1314.75

1314.75-2084.25

2084.25-3269.2

3296.2-6366.75

6366.75 and Above

Part Two: Anti-consumption Awareness

Please indicate the extent to which you agree with the following statements (Only one marked square per row).

8. I do not feel happy every time when I consume.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

9. I have been thought "consumerism" is not good for myself.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

10. I have been thought about changing my consumer behaviour.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

11. I think the change ideology of "consumerism" is necessary in whole society.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

12. I have been heard of the concept of "anti-consumption".

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

13. I have been thought "anti-consumerism" would be good for myself.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

14. I have been wanted to practice "anti-consumption" spontaneously.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

15. I think I will recommend "anti-consumption" style to others.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

16. I have been heard about boycotting a brand or an industry.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

17. I have been inquired the reasons for the boycott.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

18. I will consider the issue of sustainable development, when I shop some commodities.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

19. I will tell others about the reasons why should boycott certain brand or industry.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

Part Three: Anti-consumption Behaviour

Please indicate the extent to which you agree with the following statements (Only one marked square per row).

Personal behaviour

20. I will carefully consider what my needs before I buy a new product.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

21. Even if I have enough money, I still choose to buy less.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

22. I only choose to purchase new products when the old one is not working.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

23. Even if I have enough money, I will stick to the frugal lifestyle.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

24. The quality of commodities is the priority for me.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

Environmental and society behaviour

25. Environmentally friendly products are my priority when the price is same.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

26. I will voluntarily reduce consumption for environmental reasons.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

27. I will pay attention to my carbon footprint.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

28. I will request to reduce the unnecessary packaging when I am shopping.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

29. I will pay attention to the environmental protection and social sustainable development concept of the brand which I purchased.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

Against brand loyalty behaviour

30. Brands are not my priority when I go shopping.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

31. I believe commodity is more valuable than brand itself.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

32. I agree that luxury brands are the result of marketing rather than functional upgrades.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

33. I will not care about the sense of satisfaction that brands bring to me.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

34. I do not agree that brands can distinguish classes.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

Against Industry behaviour

35. I will resist the brands or industries which cause the environmental degradation.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

36. I will boycott the brands or industries which do negative social behaviour.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

37. I will call for the boycott of brands or industries which have some environmental problems.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

38. I will call for the boycott of brands or industries which have some social problems.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

39. I will support local independent shops instead of chain industries. Because of the environmental and social friendly reason.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree

Part Forth: Consumption Behaviour

Please indicate the extent to which you agree with the following statements (Only one marked square per row).

40. The frequency of purchase the cloth or the accessories.

More Than Once a Month Every Month Every Three Month Every Half a Year Every Year Less Than Once a Year

41. The frequency of purchase the hygiene or the cosmetic products.

More Than Once a Month Every Month Every Three Month Every Half a Year Every Year Less Than Once a Year

42. The frequency of purchasing the household products.

More Than Once a Month Every Month Every Three Month Every Half a Year Every Year Less Than Once a Year

43. The frequency of eating outside or ordering takeaway food.

Everyday Every Two Days Half a Week Every Week Half a Month Every Month More Than Once a Month
Never

44. The most common way how you are shopping.

Physical Store Online shopping leasehold

45. I always buy something on the sale season.

Strongly Disagree Disagree Somewhat Disagree Neutral Somewhat agree Agree Strongly Agree