

UNDERSTANDING CONSUMERS' ATTITUDE AND INTENTION TOWARDS SUSTAINABLE LUXURY FASHION IN CHINA

持続可能な高級ファッションにおける中国消費者の購買態度と購買意向の把握

指導教官兼主査 康上賢淑
副査 加藤 一弘
副査（外部委員） Allen Schaefer

鹿児島国際大学大学院

経済学研究科地域経済政策専攻

氏名：楊華夏

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Abstract

Over recent decades, sustainable luxury is increasingly gaining attention within the luxury industry and academic research. Luxury is linked with expensive price, exceptional quality, hedonism, uniqueness and symbolic meanings, and luxury items are also perceived to be enduring, which suggests the alignment of the concepts of luxury and sustainability. The drive for a sustainable approach in the luxury fashion market is consistent with the changed characteristics of consumers, with request for differentiated products, gaining social approval, satisfying their emotional needs and other intrinsic values. However, research on sustainable luxury has been focused more on luxury goods or services than on motivational drivers and the link between luxury values and sustainability products.

This calls for more research to develop a theoretical framework to further understand consumers' sustainable purchasing behaviour on luxury fashion goods and to help practitioners develop appropriate strategies especially in a booming market like China. Owing to China's emerging economy, the Chinese luxury market has expanded rapidly in recent years. According to a luxury report by Bain & Company (2020), mainland China's share of the global luxury market nearly doubled between 2019 and 2020. Moreover, it is forecast to overtake the United States and become the largest global market by 2025. Chinese consumers also show high levels of sustainability awareness owing to the negative environmental effects of industries in China. Nevertheless, sustainability has not yet been a high priority regarding Chinese consumers' luxury purchase behaviour, and sustainable luxury consumption has received limited and fragmented attention from academia, practitioners, and policymakers in China. It would be necessary to investigate to what extent the driving factors of sustainable luxury consumption in China are relevant, but no related empirical study has been conducted.

Therefore, the goals of the current research is

(1) to find literature problems on luxury consumption, consumer behaviour and sustainable

luxury fashion.

- (2) to explore Chinese consumers' understanding of sustainable luxury— whether and in which ways luxury and sustainability are compatible among Chinese consumers.
- (3) to investigate the key influencing factors driving consumers' attitude and purchase intention towards sustainable luxury fashion goods.
- (4) to investigate the relationship between attitude and purchase intention towards sustainable luxury fashion goods.
- (5) to examine the applicability and validity of theory of reasoned action and value perceptions in explaining purchasing sustainable luxury fashion behaviour in mainland China.
- (6) To develop and test a specific framework to help analyse and explain consumers' behaviour regarding sustainable luxury fashion goods.

Prior literature shows that luxury consumers' behaviour varies based on subjective perceptions of luxury and consumer' characteristics. Scholars have posited multiple values drive consumer purchase intent and extant research into the field of sustainable luxury focuses on dimensions like socio-cultural, ego-centred, and eco-centred values; intrinsic and extrinsic values; and four categories of factors influencing sustainable luxury purchase intention—culture, personal values, social values, and economic value. However, consumer behaviour is partly driven by cultural context and, to our knowledge; very few empirical research about the factors influencing sustainable luxury consumption in emerging countries like China has been conducted.

In order to analyse the consumer behaviour regarding sustainable luxury fashion, this study first incorporate the modified theory of consumption values (PERVAL) suggested by Sweeney and Soutar (2001) with the theory of reasoned action (TRA) as the theoretical foundation of this study. The literature also shows specific contextual factors should be added into the framework to improve the explanatory power of the model in explaining

sustainable consumption in China, so it was added to the original value perception model of this study.

The mixed research method comprised a semi-structured interview and a questionnaire survey. (1) A qualitative survey was carried out, aiming at building a preliminary conceptual framework of the purchase intention, with a sample of 34 respondents from the frequent luxury consumers in mainland of China. Transcriptions were analyzed qualitatively with NVivo Pro 12 software. Analysis of the interviews progressed using the grounded theory approach as it has significant advantages for theory generation in the field of marketing and consumer behaviour (Goulding, 1998).

(2) A quantitative online survey (convenience and snowball sampling, the purposive sampling) using a sample of 1037 with 935 valid respondents in total. The proposed model and research hypotheses were tested using SPSS 26.0 and AMOS 24.0 programs. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) analysis were adopted to develop and test independent measurement scales for questionnaire survey, providing evidence of construct validation of theoretical constructs. Based on the survey data, Structural Equation Modeling (SEM) was applied to clarify the relationship between the variables and test the hypothesised relationships between attitude and purchase intention of sustainable luxury products. Mediation analysis was also adopted to check whether the causal effect of the influencing factor on the purchase intention is caused by the mediator (consumers' attitude).

From the qualitative result of this study, a theoretical model for the influencing factors of sustainable luxury fashion in China has been constructed based on grounded theory to systematically analyze the consumer behaviour. The model highlights the interdependent relationships between values, attitude and intentions with the aim of capturing the complexities of consumers' purchase intentions, which provides foundation for further analyzing the sustainable behavior of luxury consumers.

As for the quantitative research of this study, the findings indicated the direct and indirect interactions between the variables in the final model while attitude is the moderator in this relationship and provide insights in the determinants of sustainable luxury fashion consumption. (1) Contextual factor including publicity, peer pressure, the government subsidy, or regulations is the most significant determinant on purchase attitude and intention. It further identified that government played a significant role in offering conditions for sustainable consumption. (2) Consumers' different perspectives of values including value for money, social value, uniqueness value and hedonic value all have positive effect on consumers' attitude. However, hedonic value and uniqueness value have no direct relationship with intention, although other two values have a positive effect on intention. (3) The relationship between hedonic value and intention, uniqueness value and intention were fully mediated by attitude while the relationship between contextual factor and intention, social value and intention, value for money and intention were partially mediated by attitude. (4) Sustainable lifestyle has positive effect on attitude and intention of sustainable luxury fashion goods. Attitude mediates the effect between sustainable lifestyle and intention.

From a theoretical perspective, the study contributes to the sustainable marketing literature by demonstrating the need to align the perceived values (hedonic value, social value, uniqueness value and value for money) and contextual factor with consumers' attitudes towards, and intention to purchase sustainable luxury products or brands. The findings also provide practical implications for industries to develop appropriate marketing strategies in emerging country of China. This study clarifies the contribution of contextual factor and the theory of consumption values to sustainable purchasing intentions among Chinese luxury fashion consumers. Value for money was found to be of highest significance of sustainable luxury attitude and purchase intention. Thus, marketing strategies of sustainable luxury should focus on cost-benefit analysis as consumers need to feel that they are getting utmost value by engaging in sustainable luxury fashion consumption. The reason may be partly due to the considerable purchasing power from the young generation and the

explosion of upper-middle class, thus generating an opportunity for luxury brand marketers to create a new sustainable image, instead of focusing on their historical heritage of brands. Besides, marketing campaigns should also focus on promoting sustainable luxury with social value that meet consumers' social approval. However, hedonic value and uniqueness value are not significant predictor of luxury consumers' sustainable purchasing intention despite the positive link between hedonic value and attitude. Thus, strategies focusing on emotional needs or need for uniqueness of consumers may not be very effective at promoting sustainable practices.

The perceived values are multi-dimensional but this study only tests the three values. Future studies should conduct multi-dimensional models and investigate the role of psychographic characteristics, such as epistemic value or other personal values. Another limitation of the study may be the selection of samples only in different tiers of cities in mainland China, limiting the generalizability of our findings. Future studies should conduct empirical verification of our conceptual model across a wider array of nations. Additionally, this study only examines purchase intention; actual behaviour can be measured to determine whether buyers are also owners of sustainable luxury fashion products. The intention-behaviour gap should also be taken into consideration for future study.

Key words: luxury fashion; value perception; sustainable consumption; China

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Chapter 1: Introduction to the Study

1.1 Introduction

The first chapter contains background information, research problems and objectives, significance of the study and thesis outline. Luxury industry background and status quo of luxury industry have been presented while Chinese consumers' luxury purchasing power has been discussed. Then the research problems regarding Chinese consumers' sustainable luxury fashion purchase intention are proposed followed by the importance of study in this chapter. Finally, a brief introduction of the study structure is given accompanied with a flow chart in thesis outline section.

1.2 Research Background

1.2.1 Development of Luxury Industry and Sustainable Luxury fashion

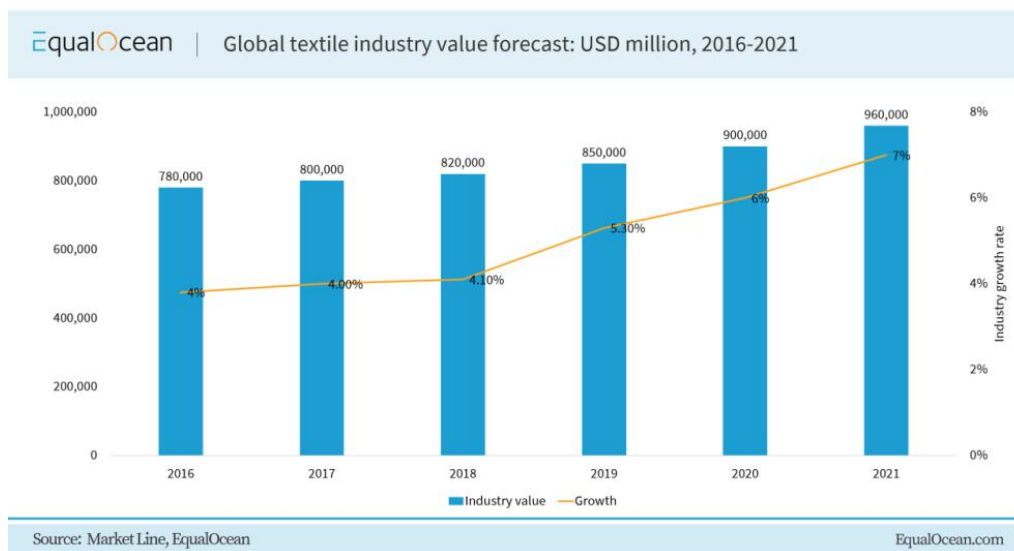
Luxury industry, established by the French Haute Couture (Stegemann, 2006) is growing dramatically in recent decades. It developed rapidly from the industry revolution period, benefiting from steam power in nineteenth century (Briot, 2011). After that, it showed steady continually increase. The global sales volume of luxury goods was US\$236 billion in 2009 (Bian and Forsythe, 2012), up from US\$130 billion in 2007 (Hung et al., 2011). Luxury fashion is the most important part of luxury revenue. According the report from Deloitte (2019)¹, the aggregate luxury fashion sales, including clothing and footwear, luxury bags and accessories, luxury jewelry and watches and prestige cosmetics and fragrances, in 2019 was US\$ 281 US billion, showing steady increase despite the pandemic crisis. Among them, the revenues of the world's Top 100 luxury fashion companies was US\$281 billion in 2019,

¹ Deloitte, "Global Power of Luxury Goods 2020". accessed June, 7, 2021.
<https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/consumer-business/deloitte-cn-cb-global-powers-of-luxury-goods-report-2020-en-201202.pdf>

up from US\$266 billion in the previous year (an increase of US\$15 billion)².

Fashion industry, a consistent growing industry (Figure 1.1), is the “second most polluting industry after oil, the largest consume of water and is responsible for 8-10% of global carbon emissions – more than all international flights and maritime shipping combined”³. “In the U.S. and in the U.K., people throw away about 30 kilos of clothes every year”⁴.

Figure 1.1 Global Textile Industry Value Forecast



Source: <https://equalocean.com/analysis/2020021613591>.

Sustainability in the luxury fashion field is receiving increasing attention within both luxury industry and academic research. ‘Sustainable Consumption’ or ‘Ethical Consumption’ involves three aspects: quality of life, protecting and preserving the environment, and

² Ibid, 1.

³ accessed May, 15, 2021.

<https://www.linkedin.com/pulse/fashion-worlds-2nd-most-polluting-industry-after-oil-heidy-rehman>.

⁴ accessed May, 15, 2021.

<https://www.forbes.com/sites/hbsworkingknowledge/2015/11/17/stella-mccartney-luxury-and-environmental-sustainability-can-co-exist/?sh=415d2b7c486a>.

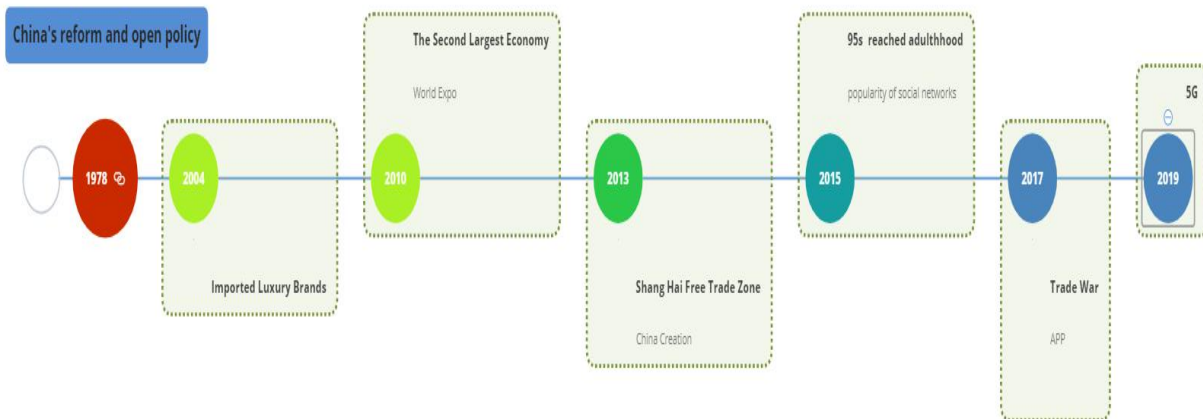
keeping the natural resources useful for the future generation (Quoquab et al., 2019). Luxury is linked with expensive price, exceptional quality, hedonism, uniqueness and symbolic meanings (Berry, 1994; Kapferer and Bastien, 2012; Ko et al., 2019; Teimourpour and Heidarzadeh Hanzaaee, 2011; Vigneron and Johnson, 2004), and luxury items are also perceived to be enduring (Athwal et al., 2019), which suggests the alignment of the concepts of luxury and sustainability.

The driver for a sustainable approach in the luxury market is consistent with the changed characteristics of consumers, with request for differentiated products, gaining social approval, satisfying their emotional needs and other intrinsic values (Gazzola et al., 2017). In response to this, more and more luxury companies incorporate Corporate Social Responsibility (CSR) in their mission, objectives, strategically actions (Cervellon and Shammas, 2013a). For example, the leading sustainable luxury brands such as Stella McCartney (Kering/PPR) or Edun (LVMH) in luxury fashion (Cervellon and Shammas, 2013a) are more attentive to the origin and provenance of the products, contributing to the protection of the planet.

1.2.2 The Significance of Research on China's Luxury Consumption

China, 5000 years history, has developed luxury consumption since Han Dynasty (206BC-220AD) along with the Silk Road was established. In contemporary society, the reform and opening-up policy in 1978 transitioned China's economy to a socialist market economy, and the past three decades illustrate dramatic change in consumers' luxury consumption and tradition. For example, in 2010 China became the world's second largest economy and luxury consumption expanded with consumers' increasing purchasing power. The development of luxury consumption change is shown in the timeline below briefly (Figure1.2).

Figure 1.2 Timeline of Luxury Development in Contemporary China

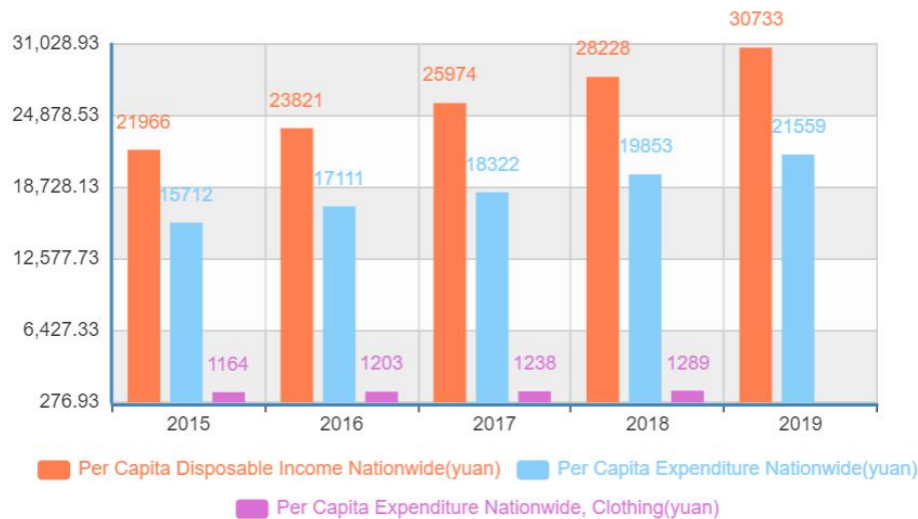


Source: Author's Compilation.

The purchasing power of Chinese consumers can be seen in the luxury industry. In the past few decades, China's strong economic growth can explain the phenomenon its ability to purchase luxury brands. According to data from NBSC (2019)⁵, consumption promote economic growth with final consumer spending in 2020 contributing 76.2% to GDP growth, while national residents' Engel's Coefficient was 28.4, which is 35.5 percentage points lower than that in 1978. The general average income increased dramatically in the past two decades as Figure 1.3 shows that per capita disposable income nationwide (yuan) increased 40% (21966 yuan in 2015 to 30733 yuan in 2019), while the money spent on clothes also grew.

Figure 1.3 Per Capita Disposable Income Nationwide.

⁵ NBSC, accessed September 14, 2020. <http://data.stats.gov.cn/english/easyquery.htm?cn=C01>.



Source: NBSC: <http://data.stats.gov.cn/english/easyquery.htm?cn=C01>.

Recently, Chinese consumers have been the engine of worldwide growth in luxury spending (McKinsey, 2019)⁶. Thanks to the ‘price harmonization, consumer-centered strategies, and governmental initiatives’, according to report by Bain & Company (2019)⁷, Chinese consumers dominate the luxury consumption market, accounting for 33 percent of the global market in 2018. In 2018, Chinese consumers at home and abroad spent 770 billion RMB (US\$115 billion) on luxury items—equivalent to a third of the global spend—with each luxury-consuming household spending an average of 80,000 RMB year (McKinsey-China luxury report 2019)⁸. In 2020, while the global luxury sales decreased due to the COVID-19, “Mainland China’s share of the world luxury goods market nearly doubled in 2020, putting it on a path to become the biggest market by 2025”⁹(Figure 1.4). Specifically, “The luxury goods market in mainland China began climbing in April 2020 and will likely

6 McKinsey, 2019. “The Chinese Luxury Consumer”, accessed September 14, 2020. <https://www.mckinsey.com/featured-insights/china/the-chinese-luxury-consumer>

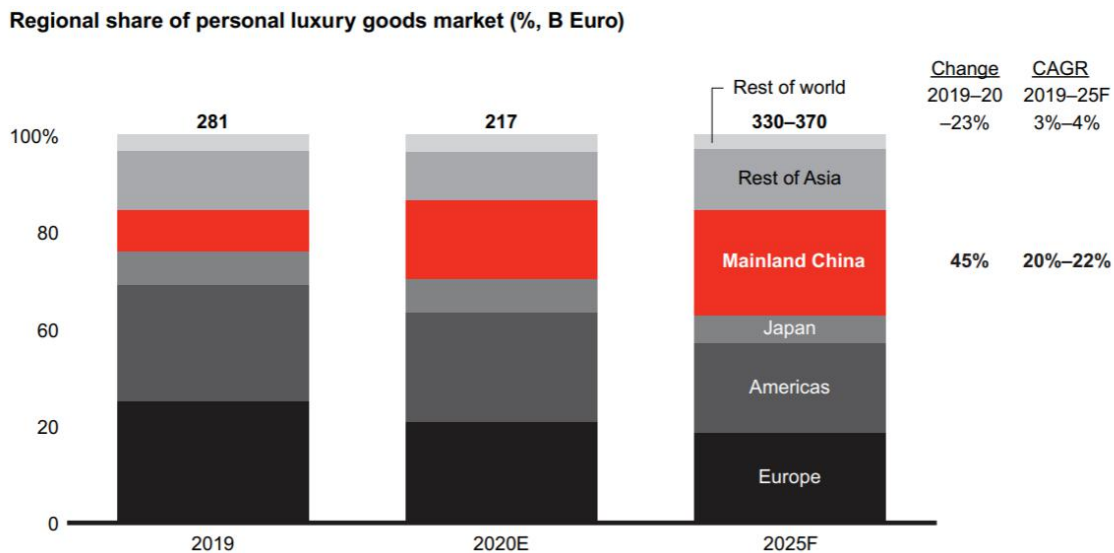
7 Bain & Company, 2019. accessed on September 20, 2020. Available from: https://www.bain.cn/news_info.php?id=946

8 McKinsey, 2019.

9 Bain & Company, 2020. Accessed on March, 21, 2021. https://www.bain.com/globalassets/noindex/2020/bain_report_chinas_unstoppable_2020_luxury-market.pdf.

achieve about 48% growth in 2020, totaling almost RMB 346 billion (see Figure 1.5).”

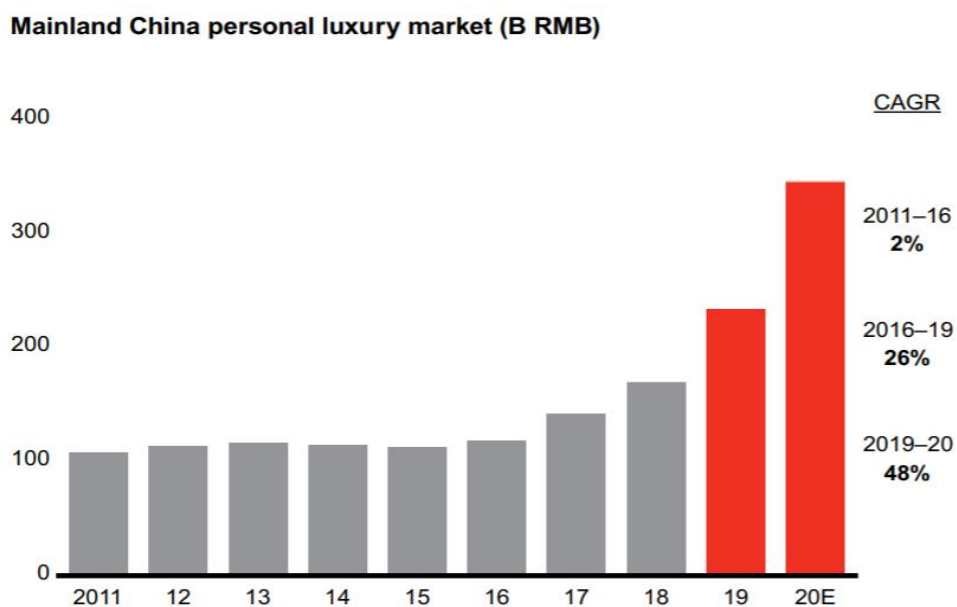
Figure 1.4 Regional Share of Personal Luxury Goods Market (% , B Euro)



Notes: Mainland China 2019–20 growth rate 45% is in current exchange rate.

Sources: Bain-Altgamma 2020 Worldwide Luxury Market Monitor; Bain analysis.

Figure 1.5 Mainland China Personal Luxury Market (RMB)

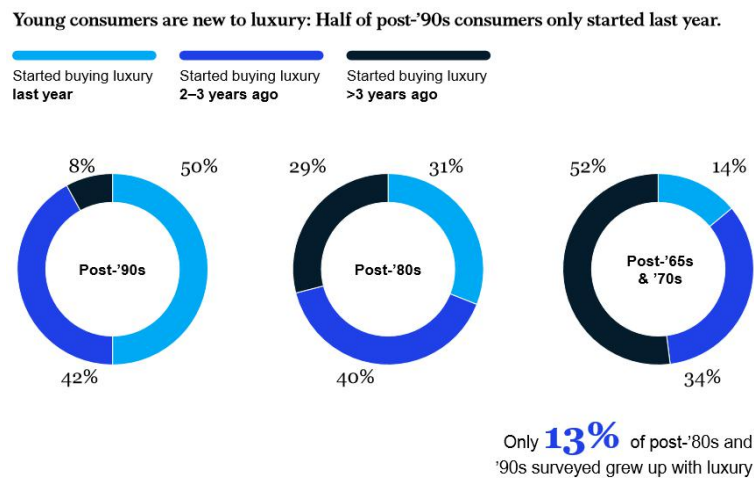


Sources: Bain-Altgamma 2020 Worldwide Luxury Market Monitor; Expert interview; Lit research; Bain analysis.

It also should be noted that Chinese luxury market is still at early age compared with

mature markets in developed countries such as the USA, the UK, and Japan, even though Chinese consumers are inclined to be more sophisticated (Gao et al., 2009). According to McKinsey China Luxury Report in 2019, China's young consumers are new to luxury (Figure 1.6), and thus have a less nuanced understanding of the heritage upon which the market traditionally trades¹⁰(p.7).

Figure 1.6 Luxury Report of Young Chinese Consumers



Source: McKinsey China Luxury Report in 2019, p7.

This research focused on luxury fashion including clothing and footwear, luxury bags and accessories, luxury jewelry and watches and prestige cosmetics and fragrances. These product categories were chosen for the following reasons. First, the report indicated that luxury fashion including clothing and footwear sector continues to be the dominate products selling among the top 100 luxury companies (Deloitte, 2020)¹¹. Second, luxury fashion is affordable compared to luxury assets such as airplanes, automobiles; travel and leisure services; boating and yachts; fine art and collectibles; and fine wines and spirits (Deloitte,

¹⁰ Mckinsey, 2019.

¹¹ Deloitte, 2020. accessed July 7, 2021. <https://www2.deloitte.com/global/en/pages/consumer-business/articles/gx-cb-global-powers-of-luxury-goods.html>

2020, p45)¹², so that the luxury consumers of fashion are reachable and generate feasibility for this investigation.

1.2.3 Chinese Consumers Sustainable Fashion Consumption

According to the literature, Chinese consumers maintain high levels of sustainability awareness (Henninger et al., 2017). China's sustainable consumption dates back to 1992 with the report: 21st century agenda of China: Population, Environment and Development, which concluded that individual consumption was unsustainable (Qu et al., 2015). Chinese government has actions accordingly, "committing to the Paris Agreement, proposing a range of carbon, energy and pollution targets in its 12th five-year plan and launching the new Made in China 2025 strategy which focuses on pursuing green development and upgrading China to be a manufacture of quality over quantity"¹³. It is reported from World Economic Forum 2020 (Figure 1.7)¹⁴ that 85 percent of Chinese respondents would be willing to change their consumption behaviour due to their climate change concern, while 31 percent of Japanese would change their daily consumption behaviour, and 47 percent of them indicated they do not care about climate change. The high levels of sustainability awareness of Chinese consumers would promote tangible purchases (Henninger et al., 2017). The '2019 China Sustainable Consumption Report'¹⁵, after a three-year survey from 10508 valid respondents indicates that more than 80 percent of respondents conducted sustainable consumption in daily life. Specifically, from this report, 83 percent of respondents would choose green

12 Deloitte, 2020. accessed July 7, 2021.
<https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/consumer-business/deloitte-cn-cb-global-powers-of-luxury-goods-report-2020-en-201202.pdf>, 45

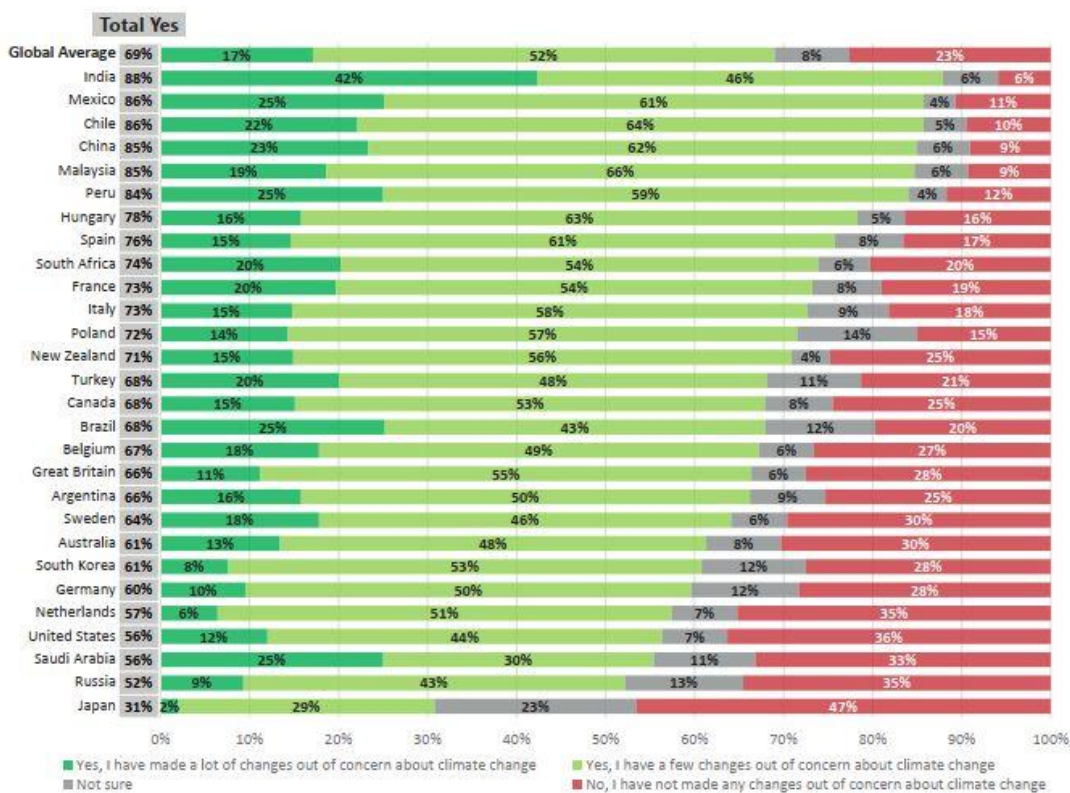
13 "How is China increasing its focus on sustainable fashion?" accessed November 11, 2020.
<https://chinesefashionchic.com/2020/06/26/how-is-china-increasing-its-focus-on-sustainable-fashion/>

14 World Economic Forum, 2020. "Climate Change and Consumer Behaviour", accessed September 20, 2020,
<https://www.ipsos.com/sites/default/files/ct/news/documents/2020-01/global-advisor-climate-change-consumer-behavior.pdf>.

15 "2019 China Sustainable Consumption Report", accessed September 20, 2020.
<https://www.prnasia.com/story/269149-1.shtml> (in Chinese).

clothes while more than 90 percent of consumers might either rent clothes or purchase second hand clothes. The reasons behind this change are mainly two fold: the first is the commitment from the global luxury industry towards sustainability and their integral sustainable strategies as competitive advantages, while the other may be the pressures from the government or policies that incorporate sustainability with economic development or 'circular economy' (Gazzola et al., 2017).

Figure 1.7 Consumers Concern about Climate Change by Countries



Source: World Economic Forum 2020, p2.

It can be assumed that a relative high consciousness of environment protection among Chinese consumers is the precondition for their purchasing behaviour (Henninger et al., 2017). Promoting sustainable production and consumption would benefit economic growth and relieve environmental pressure on resources and this topic tends to get more attention from both academia and industries. Many researchers have explored sustainable

consumption behaviour in China (Geng et al., 2017). For example, Liu et al. (2012) explored the influencing factors of sustainable consumption behaviour by investigating the urban consumers while Wang et al. (2014) clarified the decision-making process of sustainable consumption of rural residents in China, and found a positive relationship between intentions and behaviour.

Sustainable fashion is receiving increasingly attention and more Chinese people, especially the younger generations tend to express their concerns with and shortcomings of fast fashion. Thus, they would like to search for the durable luxury alternatives. Along with the western fashion brands locating locate production lines in China, Chinese consumers suffer from the negative effect of textile industry, which is the second most polluting industry after oil, and “is responsible for 8-10% of global carbon emissions – more than all international flights and maritime shipping combined”¹⁶. Prior research has also shown the similarity of sustainable fashion consumption in China, Korea and Japan and the findings indicate that cultural background does not strongly affect their level of environmental concerns (Kong and Ko, 2017). Thus, the comparison of consumers in different cultures is not the focus of this study. The findings also showed that Chinese consumers tend to be the strongest sustainable fashion consumers with more concerns about the environmental problems, while “Japanese prefer health-related benefits” (Kong and Ko 2017, p. 230) ¹⁷. Thus, there is a need to further explore Chinese consumers’ behaviour regarding sustainable fashion.

Nevertheless, sustainability has not yet been a high priority regarding Chinese consumers’ luxury purchase behaviour (Jung et al., 2020; Park and Lin, 2020), and sustainable luxury consumption has received limited and fragmented attention from academia, practitioners, and policymakers in China. Gazzola et al. (2017) also highlighted

16 “Sustainable Fashion: Is China’s Fashion Industry Going Green?”, 2020. accessed October 8, 2020. <https://equalocean.com/analysis/2020021613591>

17 Min Kong, H., and Ko, E. “Why do consumers choose sustainable fashion? A cross-cultural study of South Korean, Chinese, and Japanese consumers”. *Journal of Global Fashion Marketing*, 8(3), 2017. pp. 220–234.

that it would be interesting to investigate to what extent the driving factors of sustainable luxury consumption in China are relevant, but no related empirical study has been conducted.

Reseachers have studied the luxury behaviour from different perspectives in China (Kong and Ko, 2017; Li et al., 2012; Sun et al., 2016; Zhan and He, 2012; Zhang and Kim, 2013). For example, young consumers purchase products impulsively including conspicuous consumption, over-consumption and extravagance and waste (Qu et al., 2015).

The increasing commitment of protecting the environment among Chinese consumers may, in turn, lead to supportive attitudes towards green practices. A recent research demonstrated that purchasing luxury can be the unique means to engage in sustainable consumption because luxury products are more durable (Sun et al., 2021). However, the sustainable luxury consumption is still limited, although some researchers have noticed the importance of investigating sustainable fashion consumption in China (Gazzola et al., 2017; Henninger et al., 2017; Qu et al., 2015). Very few empirical researches about the factors influencing sustainable luxury consumption in emerging countries, such as the People's Republic of China (China), has been conducted (Gazzola *et al.*, 2017; Zhan and He, 2012). Thus, It is crucial to understand the attitude and attention underpinning sustainable luxury consumption behaviour (Jain, 2018).

1.3 The Research Problem and Objective

1.3.1 The Research Problem

The research problem has been defined as:

“To examine consumers’ attitude and purchase intention on sustainable luxury fashion products within the mainland Chinese market”. Specifically, the following research problems are listed:

RQ1: Do consumers in China understand the meaning of sustainable luxury fashion? Will they consider purchasing sustainable luxury fashion items?

RQ2: What are **the key driving factors** influencing Chinese consumers' attitude and purchase intention towards sustainable luxury fashion?

RQ3: How do **perceived values** influence Chinese consumers' attitude and purchase intention towards purchasing sustainable luxury fashion?

RQ4: To what extent do **contextual factor** influence Chinese consumers' attitude and purchase intention toward sustainable luxury fashion?

RQ5: How do **sustainable lifestyle** influence Chinese consumers' attitude and purchase intention toward sustainable luxury fashion?

RQ6: What is the relationship between attitude and purchase intention towards sustainable luxury fashion?

1.3.2 Research Objectives

The primary goal of this research is to examine the structure of Chinese consumer attitude and purchase intention towards sustainable luxury fashion goods, and to evaluate the underlying determinants of that, in order to form an attitude-intention framework for explaining the consumers' intention regarding sustainable luxury fashion in China. The specific research objectives are the components to examine research problems as shown below:

- (1) To find literature problems on luxury consumption, consumer behaviour and sustainable luxury fashion.
- (2) To explore Chinese consumers' understanding of sustainable luxury individually by conducting qualitative research utilising open-ended questions of in-depth interviews.
- (3) To find whether and in which ways luxury and sustainability are compatible among

Chinese consumers.

- (4) To investigate the key influencing factors driving consumers' attitude and purchase intention towards sustainable luxury fashion goods.
- (5) To investigate the relationship between attitude and purchase intention towards sustainable luxury fashion goods.
- (6) To examine the applicability and validity of theory of reasoned action and value perceptions in explaining purchasing sustainable luxury fashion behaviour in mainland China.
- (7) To develop and test a specific framework to help analyse and explain consumers' behaviour regarding sustainable luxury fashion goods.

To achieve this, the paper is organised as follows: first, a conceptual framework is presented based on a literature review of prior research on value perceptions (hedonic value, uniqueness value, social value and value for money), and consumer attitude and purchase intention from which hypotheses are formed. Then, we present the methodology and results of a study testing the hypotheses. The final section discusses the empirical findings, reconciles them with the conceptual framework and discusses the practical implications along with limitations and directions for future research.

1.4 Research Justification and Originality

Research in a broader context of sustainable consumption suggests a variety of values perceptions play a crucial role in consumers' decision-making (Biswas and Roy, 2015; Koller et al., 2011; Lin and Huang, 2012) and so as the luxury field (Aw et al., 2021; Wiedmann et al., 2007). Values are therefore explored in this study by relating them to attitude and intention to sustainable luxury fashion for the luxury fashion consumers. Besides, contextual factor is another significant push for sustainable behaviour as studies suggested (Biswas and Roy, 2015; Wang et al., 2014).

More of the research on sustainable luxury has been focused on luxury goods or services (Han et al., 2017), supply chain (Chan et al., 2012; Clift et al., 2013), the retailer (Argo et al., 2008; Arnold and Reynolds, 2012) than on motivational drivers and link between values and luxury products, in particular, regarding sustainable fashion consumers (Athwal et al., 2019; Lundblad and Davies, 2016).

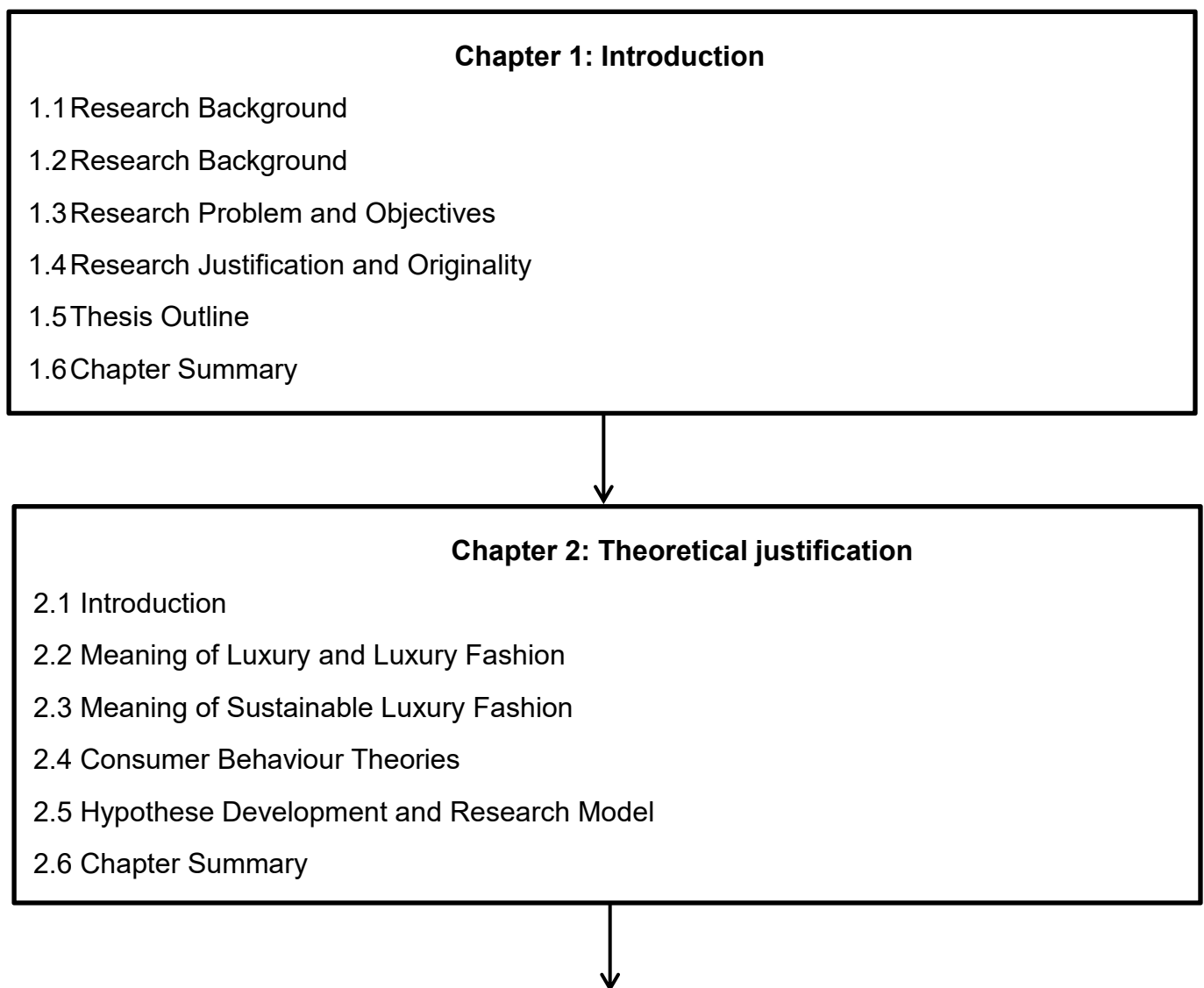
Sustainable luxury fashion is new concept which has received limited attention from researchers. All the relevant literature has been listed in Chapter 2. There are very few empirical studies focusing on luxury and sustainable development (Kapferer and Michaut, 2015). Only a limited number of studies have investigated sustainable fashion purchase behaviour (Kong and Ko, 2017) and sustainable luxury (Achabou and Dekhili, 2013; Cervellon and Shamma, 2013a). Gazzola et al. (2017) point out that it would be interesting to investigate whether and to what the extent of the driving factors of sustainable luxury consumption in China, but no empirical study was found on this topic in the world. Thus, it is worth exploring the significant factors that explain consumers' purchase intention for sustainable luxury fashion products for both academia and industry.

In addition, values and motivations underpinning sustainable consumption behaviour still remain a vastly under-researched area (Jägel et al., 2012; Bly et al., 2015). Hence, the aim of this paper is to explore the values and motivations behind sustainable fashion purchase decisions by frequent consumers. This aims to understand the myriad of motivations for sustainable fashion consumption and highlight the probable space for developing the market as a habituated form of consumption.

This study contributes to the literature and managerial strategies from four aspects: First, this study first adopted the theory of perceived value scales (PERVAL) (Sweeney and Soutar, 2001) and the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1975) to explore consumer attitude and purchase intention towards sustainable luxury fashion. Second, this study employed both qualitative interview and quantitative methods to deep understand consumers' perceptions of sustainable luxury fashion and their purchase

intentions. Third, the study developed a structural equation model to gain an insight into how values, contextual factor and sustainable lifestyle influence sustainable luxury fashion behaviour. Fourth, the path analysis was used to clarify which factors and to what extent do they affect decision-making process on sustainable luxury fashion.

1.5 Thesis Outline



Chapter 3: Methodology and research design

- 3.1 Introduction
- 3.2 Research Design
- 3.3 Secondary Research Strategy
- 3.4 Primary Research Strategy
- 3.5 Data Collection
- 3.6 Data Analytical Methods
- 3.7 Chapter Summary



Chapter 4 Data analysis

- 4.1 Introduction
- 4.2 Analysis of Qualitative Research Data
- 4.3 Analysis of Quantitative Research
- 4.4 Chapter Summary



Chapter 5 Discussion and Conclusion

- 5.1 Introduction
- 5.2 Summary of Research Findings
- 5.3 Implications
- 5.4 Limitation and Future Research
- 5.5 Chapter Summary

1.6 Chapter Summary

This chapter provides the research background of luxury fashion and Chinese sustainable consumption, thus generating the research problems in this area and identifying the research objectives. The research scope was set based on reports and literature. The research was justified based on them and the thesis outline was offered to get a clear map of this study process.

Chapter 2 Theoretical Justification

2.1 Introduction

This following section is organized as follows. First, there is the extensive literature review on the concepts of luxury, luxury fashion, and sustainable luxury fashion. Next, consumer behaviour in luxury field has been summarized to show the differences from a variety of perspectives. Finally, theories of consumer behaviour containing models can provide insights of this study and explain the contributions of this study.

2.2 Meaning of Luxury and Luxury Fashion

Over the past few decades, the literature has defined luxury goods and brands from various points of view. Veblen (1899) first introduced the term 'conspicuous consumption' to describe something that satisfies no real need but is a mark of prestige. This provided the original framework of status consumption (Patsiaouras, 2017). After this, Bearden and Etzel (1982) showed that luxury goods consumed in public were more likely to be conspicuous goods (Bearden and Etzel, 1982). Historically, luxury products at first were consumed by high class people, with the core image of superior quality while nowadays things changed as many luxury brands rely on the consumption of accessories such as handbags, perfumes, cosmetics, etc. from wider public (Arnold and Reynolds, 2012). For instance, Burberry, the British luxury brand, first introduced outerwear for military use and then designed 'trench coat' for officers during the First World War, but now the brand is famous for women's wear, accessories, etc. The luxury initially was an important social activity (Berry, 1994) and only the elite could purchase luxury products.

The meaning of luxury also differs from culture to culture in history. In western societies, Sekora (1977) makes claims about the idea of luxury as : 'the single most important social

and political idea of eighteenth-century England' (p.9)¹⁸; 'the charge of luxury was the most incisive criticism that could be directed against Western civilization'(p. 48)¹⁹; to account for the transformation of the idea in the eighteenth century (Sekora,1977). Asian manufactured goods, silks, fine cottons, porcelain, ornamental bronze and brassware, lacquer, ivory and paper goods, were all luxuries in Europe in the seventeenth to eighteenth century, and had a profound effect on Europe consumption(Berg, 2004). However, the understanding of luxury is still limited, especially in the Eastern world even though increasing scholars are trying to understand luxury in China (Zhan and He, 2012) and other societies. Undoubtedly, environmental, socio-economic and cultural factors define and reshape consumers' needs and desires to engage in luxury consumption practices (Patsiaouras, 2017). The history of luxury can be summarised in McNeil's book '*Luxury: A rich history*' from Oxford University Press(McNeil and Riello, 2016).

'In the Middle Ages and the Renaissance, for example, luxury was linked to notions of magnificence and courtly splendour. In the eighteenth century, luxury was at the centre of philosophical debates over its role in shaping people's desires and oiling the wheels of commerce. And it continues to morph today, with the growth of the global super-rich and increasing wealth polarization. From palaces to penthouses, from couture fashion to lavish jewellery, from handbags to red wine, from fast cars to easy money, Peter McNeil and Giorgio Riello present the first ever global history of luxury, from first-century Romans to twenty-first-century Russian oligarchs: a sparkling and ever-changing story of extravagance, excess, novelty, and indulgence' (McNeil and Riello, 2016)²⁰

Despite the difficulty of defining the concept of luxury goods, literatures reviewed the key points such as 'high quality, rarity, premium pricing, and a high level of aesthetics' (Ko and Costello (2019)²¹ to understand the meaning of luxuries and individual differences in

18 Sekora, J. (1977). *Luxury: The Concept in Western Thought, Eden to Smollett*. p9.

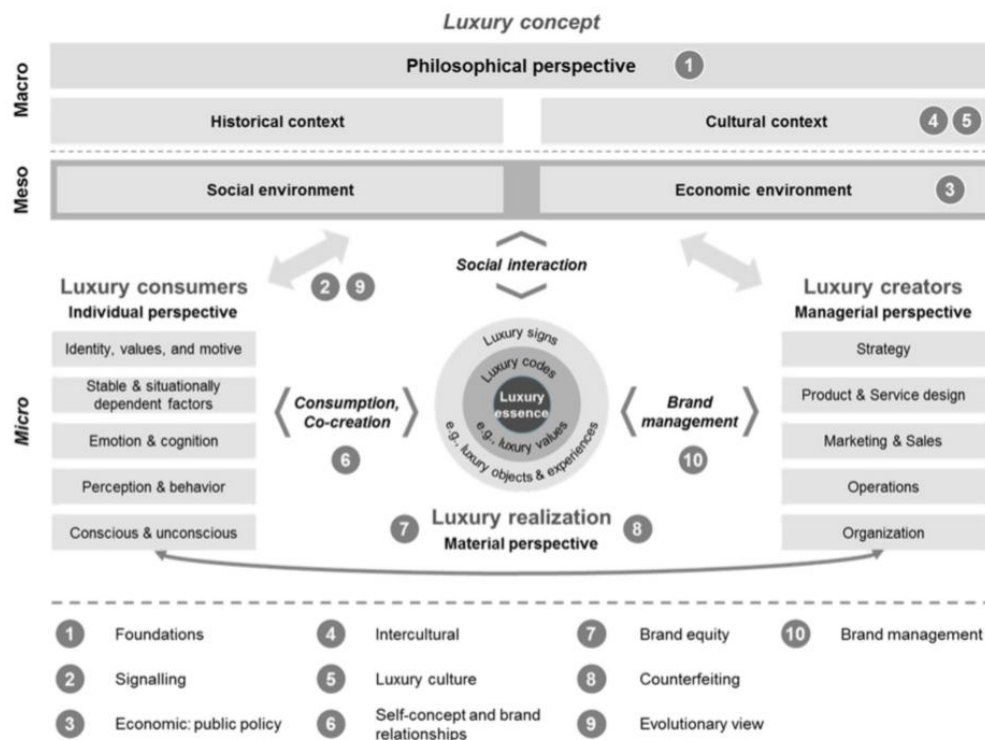
19 Ibid, p.48.

20 McNeil, P., and Riello, G. (2016). *Luxury: A rich history*. Oxford University Press. p.159.

21 Ko, Eunju, et al. "What is a luxury brand? A new definition and review of the literature." *Journal of Business*

terms of perception of luxury goods. Gonçalves et al. (2016) have identified luxury from various perspectives as shown in the figure 2.1. This illustrates the flow from the philosophical perspective to micro interactions between luxury consumers and creators.

Figure 2.1: Conceptual Model of Luxury



Source: Gurzki and Woisetschlager, (2016). p.159.

Phau and Prendergast (2000) combined the components of ‘brand identity; awareness, perceived quality, and loyalty’ together (p.124)²² to understand the meaning of luxury goods. Teimourpour and Heidarzadeh Hanzaee (2011) pointed out that luxury goods refer to products ‘with different characteristics from different perspectives including symbols of wealth, status, high quality and price, providing pleasure, prestige and non-essential items’ (p. 311)²³. Some researchers have compared the characteristics of luxury goods with

Research 99 (2019). pp.405-413.

22 Phau, Ian, and Gerard Prendergast. "Consuming luxury brands: the relevance of the 'rarity principle'." *Journal of brand Management* 8.2 (2000). pp.122-138.

23 Teimourpour, Bahar, and Kambiz Heidarzadeh Hanzaee. "The impact of culture on luxury consumption behaviour

common goods and found the difference between them. For instance, Kapferer (2010) argued that luxury brands need to sustain skilled workforces, produce goods in-house, including accessories such as Chanel watches and unlike fashion brands, luxury adds up elements of uniqueness, like being produced in its home country. Kapferer and Bastien (2012) used De Barnier et al.'s seven elements of luxury, including exceptional quality, hedonism (beauty and pleasure), price (expensive), rarity (which is not scarcity), selective distribution and associated personalised services, exclusive character (prestige, privilege), and creativity (art and avant-garde) to differentiate luxury goods from premium or fashion goods (Kapferer and Bastien, 2012). Specifically, scarcity is an important attribute of luxury goods (Giacalone, 2006). For instance, Chanel No5 perfume can only be found in its own company's store at 21 rue Cambon in Paris in its early years (Catry, 2003). Berry (1994) mentioned that 'whereas necessities are utilitarian objects that relieve an unpleasant state of discomfort, luxuries are characterized as objects of desire that provide pleasure' (p.37)²⁴. 'Quality, authenticity, prestigious image, commands premium price, resonance'²⁵ are five criteria of defining a luxury brand. However, these characteristics are partial and not the whole construct. Luxury may have excellence, creativity and exclusivity but this is insufficient to define luxury (Cristini et al., 2017). Luxury tends to be associated with conspicuousness, hedonism, and success —concepts that emphasize the consumer's own interests and well-being, or self-enhancement values (Janssen et al., 2013). Table 2.1 show the representable definitions of luxury from prior studies.

Table 2.1 Representational Definition of Luxury

Year	Author	Definition
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among Iranian consumers." *Journal of Islamic Marketing* (2011). p.311

24 Berry, Christopher J., and Christopher I. Berry. *The idea of luxury: A conceptual and historical investigation*. (Cambridge university press, 1994), p.37

25 Ko, Eunju, et al 2019, p.4.

1889	Veblen, T.	Conspicuous consumption: to describe something that satisfies no real need but is a mark of prestige
1977	Sekora, J	The single most important social and political idea of eighteenth-century England ;the charge of luxury was the most incisive criticism that could be directed against Western civilization; to account for the transformation of the idea in the eighteenth century
1994	Berry	'refined goods'; 'presence of belief;' Whereas necessities are utilitarian objects that relieve an unpleasant state of discomfort, luxuries are characterized as objects of desire that provide pleasure.
1998	Nueno and Quelch	Those whose ratio of functionality to price is low, while the ratio of intangible and situational utility to price is high.
2000	Phau, I., and Prendergast, G.	Luxury brands compete on the ability to evoke exclusivity, a well-known brand identity ... brand awareness and perceived quality
2004	Vigneron, F., and Johnson, L. W.	The definition of what separates luxury brands and non-luxury brands has been operationally defined in this study through five perceived dimensions of a luxury brand including perceived conspicuousness, perceived uniqueness, quality, hedonic and extended self.
2009	Keller, K. L.	Luxury brands have ten defining characteristics: (1) maintaining a premium image, (2) creation of intangible brand associations, (3) aligned with quality, (4) logos, symbols, packaging are drivers of brand equity, (5) secondary associations from linked personalities, events, countries, and other entities, (6) controlled distribution, (7) premium pricing strategy, (8) carefully managed brand architecture, (9) broadly defined competition, and (10) legal protection of trademarks
2011	Teimourpour, B., and Hanzaee, K. H.	Those with different characteristics from different perspectives including symbols of wealth, status, high quality and price, providing pleasure, prestige and non-essential items
2012	Davies, I. A., Lee, Z., and Ahonkhai	A luxury good has been defined as one which is aspirational and irregular in its purchase incidence, it aims to increase personal well-being and self-pleasure through peer and self-identification of the creation/continuation of personal brand identity
2017	Ki, C., et al	Making expenditures to inflate one's ego or to ostentatiously display one's wealth, it can be manifested by consuming luxury.
2019	Ko, E., Costello, J. P., and Taylor, C. R	(1) be high quality; (2) offer authentic value via desired benefits, whether functional or emotional; (3) have a prestigious image within the market built on qualities such as artisanship, craftsmanship, or service quality; (4) be worthy of commanding a premium

		price; and (5) be capable of inspiring a deep connection, or resonance, with the consumer.
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Source: Author's Compilation.

Empirical research suggested that the way to distinguish luxury products and non-luxury goods is the degree of non-functional dimensions. Luxury products are characterised as having a higher degree in symbolic dimensions, while non-luxury goods tend to be more functional. From a transformation perspective, luxury tends to be accessible in offerings ranging from tangible goods to intangible services. As several studies (Djelic and Ainamo, 1999; Wiedmann et al., 2007) reveal, luxury products can not only satisfy customers' tangible requirements but also symbolic needs. Hung and Iglesias (2011) argue that the signal meaning of luxury goods should be reassessed in Chinese consumer market.

This need for uniqueness of luxury conception might be explained from the idiosyncratic nature of luxury, since the meaning of luxury depends on consumers' own appreciation and experiences, and their socio-demographic profiles including age, gender, and ethnic groups might also influence their definition of luxury (Janssen et al., 2013). Therefore, it also should not be ignored at the individual level where one consumer's luxury product can be viewed as non-luxury brand in another consumer's eye (Bian and Forsythe, 2012). For instance, L'Oréal Group's brand L'Oréal Paris as well as Garnier, Maybelline etc are sold in supermarkets, and these cannot be regarded as luxury brands, whereas Lancôme, as the group flagship, is perceived as a luxury brand. The new luxury products can be defined as the "accessible luxury goods, which has become more affordable and acceptable by more and more people from the middle-class group." (Liang et al., 2017) ²⁶.

Consumers are likely to be willing to pay a premium price for luxury brands. As for the perceived price of luxury fashion, luxury consumers were defined as those who bought "at least one piece of luxury clothing in the past year that cost more than \$500 (<3,250RMB) or

²⁶ Liang, Yan, Sid Ghosh, and Hiroko Oe. "Chinese consumers' luxury value perceptions—a conceptual model." *Qualitative Market Research: An International Journal*, 2017. p.250.

at least two pieces of luxury clothing in the past three years that cost more than \$3,000 (<19,500RMB). Non-luxury clothing consumers were those who had not purchased any luxury clothing or items in any other luxury product categories in the past three years.’(p339)²⁷. However, it should also be noted that the perceived minimum prices of luxury depend on different facets of consumer attitude and situations. Kapferer and Laurent (2016) investigated the perceived average minimum prices for each product in different countries and the results showed considerable differences, although the non-price dimension revealed great similarity.

Luxury fashion brand

The concept of a luxury brand was first defined by Nueno and Quelch (1998, p. 61)²⁸ as “those whose ratio of functionality to price is low, while the ratio of intangible and situational utility to price is high” and further discussed by many researchers. Vigneron and Johnson (2004) distinguish luxury brands from non-luxury brands from five perceived dimensions of a luxury brand: perceived conspicuousness, perceived uniqueness, and perceived quality, perceived extended self and perceived hedonism. These dimensions are strongly linked to cultural and socioeconomic context (Li et al., 2012). Luxury brands also vary across different cultures. For instance, Italian brands pay attention to luxury culture and create news about celebrity for the sake of generating media effect, while America luxury brands (such as Calvin Klein) emerged in 1970s and focus on image and lifestyle (Husic and Cicic, 2009). Table 2.2 is the top 10 luxury goods companies by sales in 2019.

Table 2.2 Global Powers of Luxury Goods Top 10

27 Zhang, Lini, and Brenda J. Cude. "Chinese consumers' purchase intentions for luxury clothing: A comparison between luxury consumers and non-luxury consumers." *Journal of International Consumer Marketing* 30(5), 2018. pp. 336-349.

28 Nueno, Jose Luis, and John A. Quelch. "The mass marketing of luxury." *Business horizons* 41(6), 1998. p.61.

Top 10 luxury goods companies by sales, FY2019

FY2019 Luxury goods sales ranking	Change in ranking from FY2018	Name of company	Country of origin	FY2019 Luxury goods sales (US\$M)	FY2019 Total revenue (US\$M)	FY2019 Luxury goods sales growth*	FY2019 Net profit margin ^{***}	FY2019 Return on assets ^{**}	FY2016- 2019 Luxury goods CAGR ^{2†}
1	↔	LVMH Moët Hennessy- Louis Vuitton SE	France	37,468	60,069	16.8%	14.5%	8.1%	16.5%
2	↔	Kering SA	France	17,777	17,777	16.2%	14.7%	8.6%	23.3%
3	↔	The Estée Lauder Companies Inc.	United States	14,863	14,863	8.6%	12.1%	13.6%	9.7%
4	↔	Compagnie Financière Richemont SA	Switzerland	13,822	16,188	8.5%	19.9%	9.9%	2.4%
5	↑ 1	L'Oréal Luxe	France	12,334	12,334	17.6%	n/a	n/a	12.9%
6	↓ -1	Chanel Limited	United Kingdom	12,273	12,273	10.4%	19.6%	17.9%	12.5%
7	↔	EssilorLuxottica SA	Italy	10,624	19,463	6.0%	6.8%	2.3%	ne
8	↑ 1	Chow Tai Fook Jewelry Group Limited 周大福珠宝集团有限公司	China/Hong Kong SAR	8,411	8,500	13.9%	7.0%	7.5%	5.2%
9	↑ 1	PVH Corp.	United States	8,076	9,657	9.8%	7.7%	6.3%	8.7%
10	↓ -2	The Swatch Group Ltd.	Switzerland	8,014	8,294	-3.0%	9.1%	5.5%	2.9%
Top 10				143,662	179,418	11.9%	13.3%	7.6%	11.7%
Top 100				280,640	320,291	8.5%	11.2%	7.4%	8.0%
Top 10 share of Top 100				51.2%	56.0%		71.7%[‡]		

Source: Deloitte, 2020. accessed from

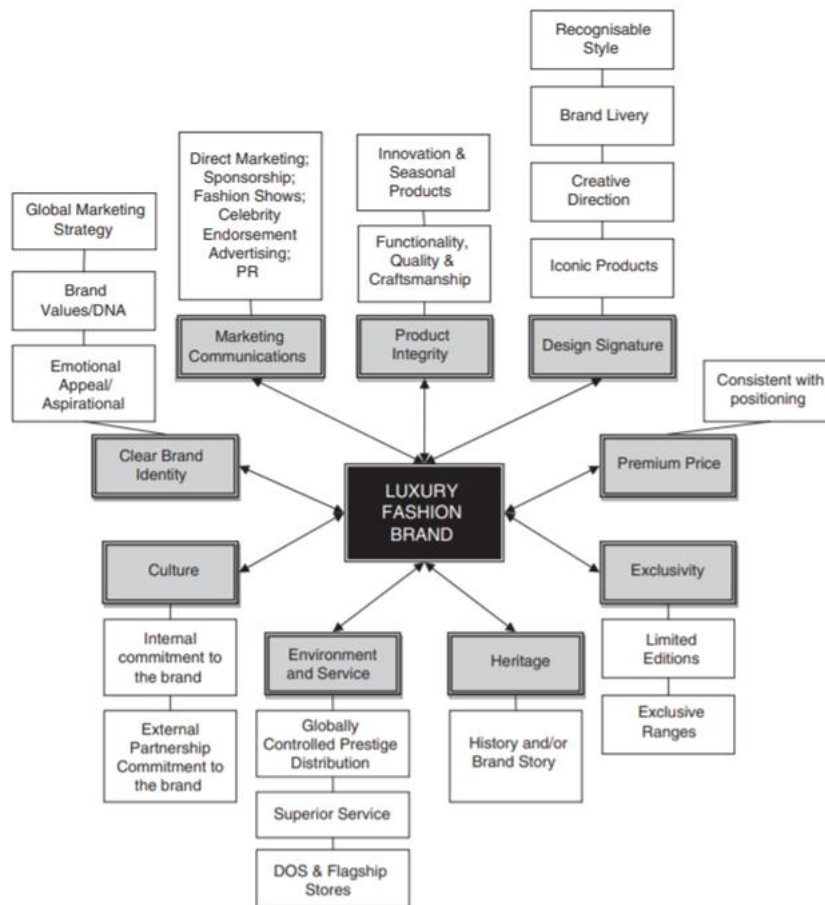
<https://www2.deloitte.com/global/en/pages/consumer-business/articles/gx-cb-global-powers-of-luxury-goods.html>

Fionda and Moore (2009) emphasize the fashion elements of luxury brand, including innovative and seasonal product development, renowned designer involvement, directly owned stores and flagship experience and international fashion shows. Li et al. (2012) summarized the key characteristics of luxury fashion brands: “global recognition, core competence, high quality and innovation, powerful advertising, immaculate in-store presentation, and superb customer service”²⁹. People distinguish luxury fashion brands as brands with the following characteristics: “global recognition, core competence, high quality and innovation, powerful advertising, immaculate in-store presentation, and superb customer service.”³⁰

29 Li, Guoxin, Guofeng Li, and Zephaniah Kambele. "Luxury fashion brand consumers in China: Perceived value, fashion lifestyle, and willingness to pay." *Journal of Business Research* 65.10, 2012. pp.1,516-1,522.

30 Ibid, p.1,517.

Figure 2.2 Luxury Fashion Brand



Source : Fionda and Christopher, 359³¹.

Luxury fashion products are defined as apparel, accessories, handbags, shoes, watches, jewelry, and perfume for which the mere use or display of a particular branded product brings prestige to owners, apart from any functional utility (Gao et al., 2009)³². The present study, following Gao et al.'s (2009)'s definition, views luxury fashion goods from the perspective of consumption behaviour and conveys this information to the subjects in this research.

This study focuses on luxury fashion market and defines the luxury should be:

31 Fionda, Antoinette M., and Christopher M. Moore. "The anatomy of the luxury fashion brand." *Journal of brand Management* 16.5, 2009. pp. 347-363.

32 Taylor, Gao, Norton, Zhang, and To, "Potential niche markets for luxury fashion goods in China". *Journal of Fashion Marketing and Management: An International Journal*, 13(4), 2009. pp.514-526

- (1) of high quality,
- (2) premium price
- (3) authentic value
- (4) prestigious image within the market including tangible qualities such as craftsmanship and intangible service
- (5) deep connection with consumers, satisfying personal needs

2.3 Meaning of Sustainable Luxury Fashion

Many researchers have recognized the environmental or ethical issues and defined sustainable fashion from different perspectives. Sustainable fashion or ethical fashion denotes 'fashionable clothes that incorporate fair trade principles with sweatshop-free labour conditions while not harming the environment or workers by using biodegradable and organic cotton' (Joergens, 2006, p.361)³³. Sustainable fashion (i.e., eco-fashion) can be explained as clothing that is designed for a long lifetime use; it is produced in an ethical production system, perhaps even locally; it causes little or no environmental impact and it makes use of eco-labeled or recycled materials (Niinimäki, K., 2010, p.152)³⁴. Wei Wei and Jung (2017) summarized the literature of the fashion industry's sustainable goals which involve both social responsibility and environmental concerning (Table 2.3).

Table 2.3 Literature on the Concepts of Sustainable Fashion

33 Joergens, Catrin. "Ethical fashion: myth or future trend?." *Journal of Fashion Marketing and Management: An International Journal*, 2006. p.361.

34 Niinimäki, Kirsi. "Eco - clothing, consumer identity and ideology." *Sustainable development* 18(3), 2010. pp.150-162.

Term	Description
Sustainable clothing	"Clothing which incorporates one or more aspects of social and environmental sustainability, such as Fair Trade manufacturing or fabric containing organically-grown raw material" (p. 938).
Ethical fashion	"Fashionable clothes that incorporate fair trade principles with sweatshop-free labor conditions while not harming the environment or workers by using biodegradable and organic cotton" (p. 361).
Eco-fashion	"Clothing that is designed for lifetime use; it is produced in an ethical system, perhaps even locally; it causes little or no environmental impact and it makes use of eco-labelled or recycled materials" (p. 152).
Green fashion	"The green [fashion] concept is related to the ecological dimension of sustainable development" (p. 67).
Sustainable fashion	"Sustainable fashion encompasses the myriad of issues of an ethical or environmental nature in the production and consumption of fashion" (p. 150).

Source: Wei, and Jung, 2017³⁵, p.1570.

'Sustainable luxury' including 'green consumption' or 'environmentally friendly consumption' is receiving increasing attention within luxury firms and academic research. 'Green consumption' or 'environmentally friendly consumption' is defined as 'consumer behaviour that is predominantly driven by consumers' environmental concerns and their attempts to reduce or limit their environmental footprints, including efforts to make their own, reduce, reuse, and recycle consumer goods and produce.'³⁶ P.104. (Moraes et al., 2012). However, there is a lack of clarity about the meaning of sustainable development in the luxury fashion context.

The question of the compatibility and consistency between sustainable development and luxury has puzzled researchers for about a decade. The incompatibility between luxury consumption and sustainability is mainly due to the overconsumption, ostentation and indulgent characteristics of luxury consumption (Veblen, 1899). Luxury brands, such as Ferrari (through its line of accessories) or Beaujolais (through the Beaujolais Nouveau yearly event), that are 'marketed' and that are perceived as conspicuous either through the

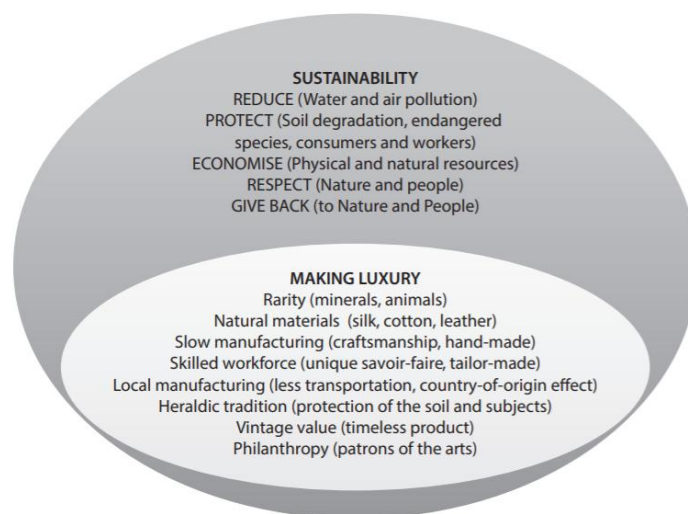
35 Wei, Xiaoyong, and Sojin Jung. "Understanding chinese consumers' intention to purchase sustainable fashion products: The moderating role of face-saving orientation." *Sustainability* 9 (9), 2017. p.1,570.

36 Moraes, Caroline, Marylyn Carrigan, and Isabelle Szmigin. "The coherence of inconsistencies: Attitude-behaviour gaps and new consumption communities." *Journal of Marketing Management* 28(1-2), 2012. pp. 103-128.

prominence of their logo (e.g. Lacoste) and/or certain attributes of their products (e.g. Harley-Davidson noise) do not naturally fit with the notion of sustainability' (Cervellon, 2013). Some researchers highlight the irrelevance of luxury and sustainability (Davies et al., 2012; Henninger et al., 2017; Joy et al., 2012), because luxury values highlight personal pleasure and wasteful and careless behaviour (Cervellon and Shammas, 2013) while sustainability is linked to altruism, sobriety, moderation and ethics (De Angelis et al., 2017; Janssen et al., 2013). This ambiguous association inevitably restricted the study of sustainable luxury. From the product perspective, Janssen et al. (2013) believe that enduring products (e.g., jewelry) is perceived as more socially responsible and provoke positive attitudes while ephemeral luxury products (e.g. clothing) are the opposite. Ephemeral products including clothing are those with a short-term orientation whereas durable or enduring products such as watches or jewelry are relative long-term in their orientation (De Angelis et al., 2017). Product attributes can be grouped into four categories: (1) intrinsic characteristics (product ingredients and appearance); (2) extrinsic characteristics (packaging and product lines); (3) marketing characteristics (promotion, advertising, or public relations); and (4) distribution characteristics (locations where products are available) (Durif et al., 2012).

However, other researchers assert that luxury, associated with quality, respect for materials, craftsmanship and durability (Joy et al., 2012; Kapferer, 2010; Vigneron and Johnson, 2004), is highly compatible with corporate social responsibility (CSR). They believe the luxury industry should take more responsibilities on environmental protection or other ethical issues. Luxury products and sustainable development share two characteristics: rarity and beauty (Kapferer, 2010). Other factors are summarised by (Cervellon, 2013) in Figure 2.3 including natural material, slow manufacturing, skilled workforce, local manufacturing, heraldic tradition, vintage value and philanthropy. 'The perceived fit between luxury and CSR mediates the combined effects of scarcity and ephemerality on consumers' attitudes toward luxury products.' (Janssen et al., 2013). The luxury brands are expected to have a sustainable supply chain.

Figure 2.3 Decoding the consumer's meaning of sustainable luxury



Source from: Cervellon (2013)³⁷, p,709.

In line with this, international luxury companies have, in recent years, significantly strengthened their commitment toward sustainable development (Davies et al., 2012; Janssen et al., 2013). Luxury is complementary to sustainability through sustainability in ethos (i.e. Stella McCartney or Edun brand) , commitment along the supply chain (Gucci group, LVMH, Porsche) and introduction of eco-collection or eco-lines (e.g. electric cars) (Cervellon and Shammass, 2013a). Specifically, Stella McCartney, one of the first leading luxury fashion brands to embrace sustainability, is known for rejecting the use of leather or fur in designs, launched the first clothing line in 2001(Lundblad and Davies, 2016). Channel, as one of the leading luxury fashion companies committed to creating long-term value for both the brand and for society, they invest in addressing the challenges of achieving sustainable materials as part of their supply-chain strategy. “As part of this strategy, Channel groups distinguish between strategic raw materials — “matières nobles” — and other raw

37 Cervellon, Marie-Cécile. "Conspicuous conservation: Using semiotics to understand sustainable luxury." *International Journal of Market Research* 55(5), 2013. pp. 695-717.

materials, which are more generic commodities.”³⁸ ‘More than 260 luxury Maisons such as Cartier, Piaget, and Van Cleef & Arpels (Richemont) are certified by the Responsible Jewellery Council, which promotes the respect of ethical, social and environmental standards.’ (Cervellon and Shammas, 2013, p.91)³⁹.

Luxury brand managers can achieve successful sustainable aims with appropriate marketing strategies if they are willing to take further measures to be more responsible but avoid the negative effects of promoting sustainable luxury products (Janssen et al., 2013). Status motives promote consumers green options, particularly when the green products are more expensive than the non-green alternatives and shopping in public (Griskevicius et al., 2010). De Silva et al. (2021) found out new green luxury products designed aesthetically similar to traditional ones tend to influence consumers’ attitudes greater than green practices made by other companies, especially for durable products and for knowledgeable consumers.

Even though luxury organisations introduce green luxury products as a way to strengthen their corporate social responsibility identity, there are plenty of challenges (De Angelis et al., 2017). From the consumers’ perspective, luxury buyers consider luxury and sustainability to some extent contradictory, especially regarding the social and economic harmony facet of sustainable development. Recycling material used in the luxury sector means losing the prestige, which caused consumers’ negative attitude toward certain practices (Achabou and Dekhili, 2013). One should not underestimate the practical difficulties or remain purely dogmatic. For example, in skin care products, natural material intended to preserve the health of consumers is innovative, but no one can guarantee zero risk, not even luxury brands. Besides, increasing pressure from calls to stop forbidding test on animals would be another problem. For instance, Stella Mc Cartney launched bio organic

38 Report to Society of Chanel. accessed on July 21, 2020.
https://services.chanel.com/i18n/en_US/pdf/Report_to_Society.pdf

39 Cervellon, Marie-Cecile, and Lara Shammas. "The value of sustainable luxury in mature markets: A customer-based approach." *Journal of corporate citizenship* 52, 2013. pp.90-101.

cosmetic line, but without testing, no one can make sure these are whole organic products (Kapferer, 2010). Yet, the luxury industries' green marketing might be perceived as green washing if the objective is perceived as not promoting a sustainable cause, but as being exploitative of a cause for commercial purposes. The combination of sustainable and philanthropic actions is a matter of degree (Cervellon, 2013).

Beyond the brand's exclusive image, luxury value is based on its objective rarity – rare skins, rare leathers, rare pearls, rare materials, and rare craftsmanship. Whether or not the luxury fashion industry is, or can be, truly sustainable is not the focus of this study. This study focuses on consumer attitude and intentions to purchase luxury fashion product and/or consider sustainability when making a purchase decision. Many researchers have explored the sustainable development strategies with luxury fashion brands or products. They also pointed out the importance of consumers' perceptions about environment-friendly products, however a very limited number of studies have explored that. Nevertheless, it is paramount to identify how luxury companies' practices might influence consumers' attitude and behaviours toward green luxury products (De Angelis et al., 2017). Before surveying consumers, it is important to provide a specific definition of sustainable luxury fashion so that the subjects of this study can understand the topic properly.

Recently, Athwal et al. (2019) suggest that 'sustainable luxury entails the scope of design, production and consumption that is environmentally and/or ethically conscious and is oriented toward correcting various perceived wrongs within the luxury industry, including animal cruelty, environmental damage and human exploitation'⁴⁰ (p406). Following Athwal, et al.'s (2019) lead, this study defines sustainable luxury as: luxury brands focus on pursuing sustainable development, incorporating design, production and consumption with the goal of balancing the economy, environment and society.

40 Athwal, Navdeep, et al. "Sustainable luxury marketing: A synthesis and research agenda." *International Journal of Management Reviews* 21(4), 2019, pp. 405-426.

2.4 Consumer Behaviour Theories

2.4.1 Theory of Reasoned Action (TRA)

According to Ajzen and Fishbein (1975), customer's behaviour intentions can be predicted by both the subject's attitude toward the risky act (Aact) and Normative Belief (NB). It can be expressed as: $B \sim BI = [Aact] w_0 + [NB(Mc)] w_1$. The TRA model developed by Ajzen and Fishbein (1975) demonstrate that an individual's beliefs and subjective norms are determinates for behaviour intention. Attitudes are functions of beliefs (Lada et al., 2009) based on the theory. Attitudes refer to "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (p.6) ⁴¹. It means the positive or negative evaluations of individual's behaviour (Wang, 2006). Subjective norm (SN) is a function of the normative beliefs (NB) and motivations to comply (MC) with those beliefs (Ajzen, 1980). 'Behaviour intentions (BI) refer to the attitudes or motivations when one intends to take specific action.' (Ming-Shen et al., 2007)

It can be expressed as: $BI = (AB) W_1 + (SN)W_2$ where:

BI = behavioural intention

(AB) = one's attitude toward performing the behaviour

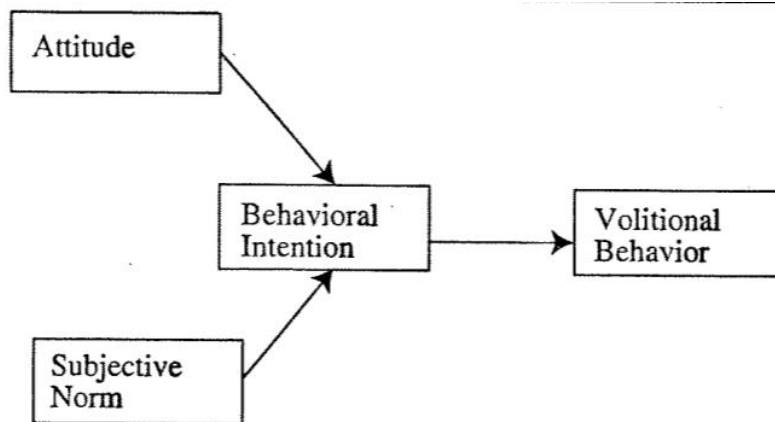
W = empirically derived weights

SN = one's subjective norm related to performing the behaviour

(Hale et al, 2003)

41 Ajzen, I and M Fishbein Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research: Addison-Wesley, Reading, MA, 1975. p.6.

Figure 2.4 Theory of Reasoned Action



Source: Hale, et al (2002). p.261.

One of the key components to the TRA is an attitude. Consumers form beliefs about a particular object by associating it with certain attributes and each belief links the behaviour to a certain outcome, positively or negatively. Thus, consumers' subjective value contributes to the attitude in direct proportion to the strength of the belief and can be expressed as the following formula:

$$A = \sum_{i=1}^n b_i e_i$$

Where A is one's attitude toward behaviour, and attitude is the sum of belief strength (b_i) and belief evaluation e_i . Belief strength is certainty with which the belief is held while belief evaluation is the extent to which the attribute is judged to be positive or negative (p.261)⁴² In other words, "A person's attitude (A) is directly proportional (a) to this summative belief

⁴² Hale, et al. "The theory of reasoned action." *The persuasion handbook: Developments in theory and practice* 14.2002. pp.259-286.

index.”(p.191)⁴³ .

Subjective norms (SN) can be measured by the extent to which consumers will be influenced by others (e.g. family, friends, colleagues) and behave specific actions (Schiffman et al., 2008). It was summarized by two key elements in previous literature, namely ‘the intensity of a normative belief that others believe we should take or not take some action’ and ‘the motivation to comply (MC) with that belief.’ (Solomon 2011, p.294)⁴⁴.

“The strength of each normative belief (n) is multiplied by the person’s motivation to comply (m) with the referent in question, and the subjective norm (SN) is directly proportional to the sum of the resulting products across the n salient referents, as in the following equation:

$$SN = \sum_{i=1}^n n_i m_i$$

Where n_i is the normative belief or perceived expectation of salient others and m_i is one’s motivation to comply with the perceived expectation of others (p.262)⁴⁵.

A global measure of SN is usually obtained by asking respondents to rate the extent to which “important others” would approve or disapprove of their performing a given behaviour. Empirical investigations have shown that the best correspondence between such global measures of subjective norm and belief-based measures is usually obtained with bipolar scoring of normative beliefs and unipolar scoring of motivation to comply (Ajzen & Fishbein, 1980).⁴⁶.

43 Ajzen.I “The theory of planned behaviour”. *Organizational Behaviour and Human Decision Processes*.50(2), 1991. p.191.

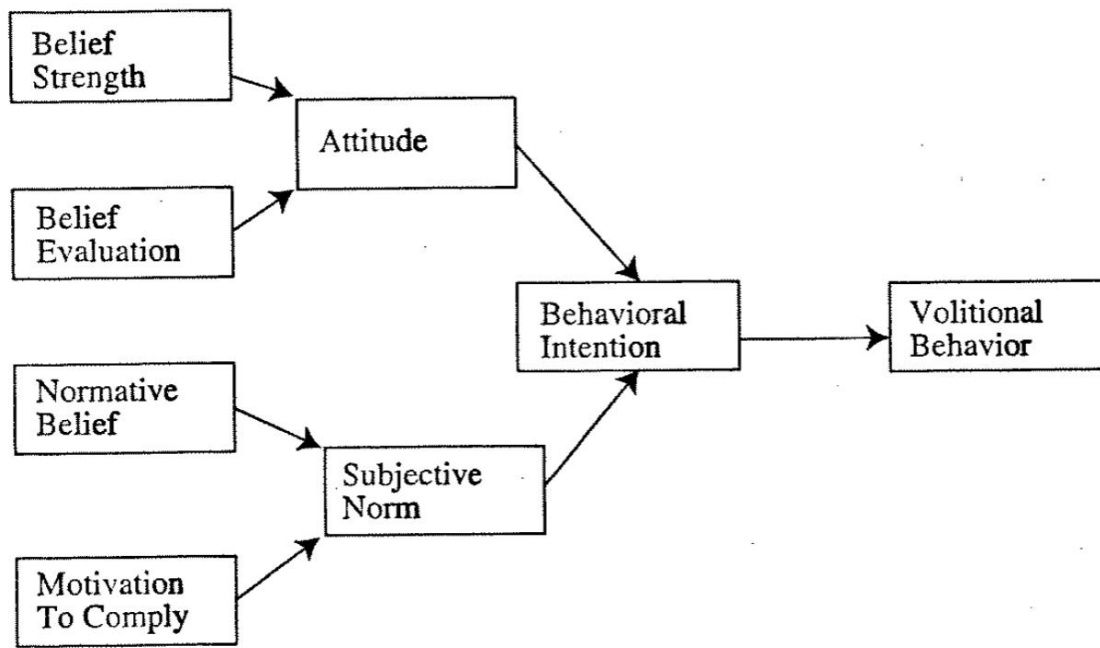
44 Solomon, Michael R. "Consumer Behaviour: Buying, Having, and Being, Global Edition." *Pearson* 14(2), 2011. pp. 116 - 124.

45 Hale et al, 2002, p.262.

46. Ajzen.I 1991. p.195.

Hale et al. (2002) explained the causal relationship of TRA in detail (Figure 2.5). The complex TRA form can explain the causal process of volitional behaviour.

Figure 2.5 Causal Diagram of Complete Components of the Theory of Reasoned Action



Source: Hale, et al (2002), p.263.

Although the Theory of Planned Behaviour (TPB) is believed to be an extension of the TRA and to better explain behaviours in many circumstances, which is discussed in the next section, the foundation role played by the TRA should not be neglected. Even in complex form, the TRA is appealing as it can identify specific targets of influence that can more directly or indirectly influence the performance of volitional behaviours (Hale et al., 2002). The TRA is applicable when the behaviour in question is under volitional control⁴⁷(p.9). By contrast, incorporating additional factors such as assessing the behavioural control over the behaviour can increase the predictability of behavioural intention(Madden et al., 1992). The present study highlights the relationship between attitude and intention from TRA. The

47 Madden, Thomas J., Pamela Scholder Ellen, and Icek Ajzen. "A comparison of the theory of planned behaviour and the theory of reasoned action." *Personality and social psychology Bulletin* 18(1), 1992. pp.3-9.

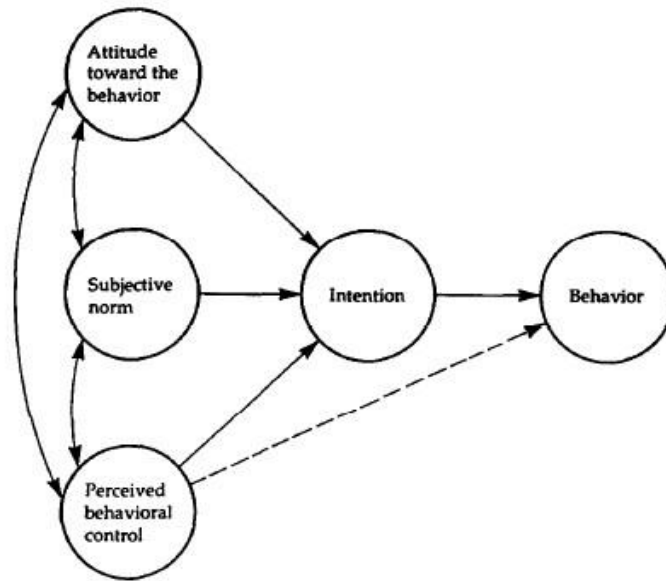
difference in the magnitude of the two relationships may reflect the influence of norms as a determinant of attitudes and less directly of intentions (Hale et al., 2002).

2.4.2 Theory of Planned Behaviour (TPB)

It is believed the theory of reasoned action was not sufficient to explain all systematic variance as it lacks the construct of perceived self-efficacy or behavioural control. The Theory of Planned Behaviour (TPB) model thus is a useful framework developed from TPA predicting behaviours (Ajzen, 1991) (Figure 2.6). The core of the TPB is the individual's intention to perform a given behaviour, where "the intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour" (Ajzen, 1991, p. 181)⁴⁸.

Figure 2.6 The Theory of Planned Behaviour

48 Ajzen, I. "The theory of planned behaviour". *Organizational Behaviour and Human Decision Processes*.50(2), 1991. p.181.



Source: Ajzen 1991, p.182⁴⁹.

The theory of planned behaviour postulates three independent determinants of intention, including attitude toward the behaviour, subjective norm and perceived behavioural control. “Attitude toward the behaviour” refers to “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behaviour in question” (p.188)⁵⁰. Subjective norm refers to “the perceived social pressure to perform or not to perform the behaviour”⁵¹.

The theory of planned behaviour expanded the theory of reasoned action by adding the concept of perceived behavioural control (PBC) as a measurement for behaviour intention (Ajzen, 1991). Perceived behavioural control refers to “people’s perception of the ease or difficulty of performing the behaviour of interest” (p.183). PBC involves two key elements: self-efficacy and controllability (Ajzen, 2002). Self-efficacy means how difficult customers are willing to behave in a specific action, while controllability refers to how much effort customers would like to pay to purchase behaviour over time (Fu et al., 2010).

49 Ibid, p.181.

50 Ibid, p.188.

51 Ibid, p.188.

According to the PBC, the control beliefs may be based partly on past experience with the behaviour, or be influenced by second-hand information about the behaviour, including by the experiences of acquaintances and friends, and by other factors that increase or reduce the perceived difficulty of performing the behaviour in question. The formula can explain the more information individuals believe they possess, the greater should be their perceived control over the behaviour.

$$PBC = \sum_{i=1}^n c_i p_i$$

Where *c* denotes a control belief (a perceived resource or opportunity) and *p* is perceived power or perceived ability of the belief to facilitate or inhibit performance of the behaviour⁵² (p.277).

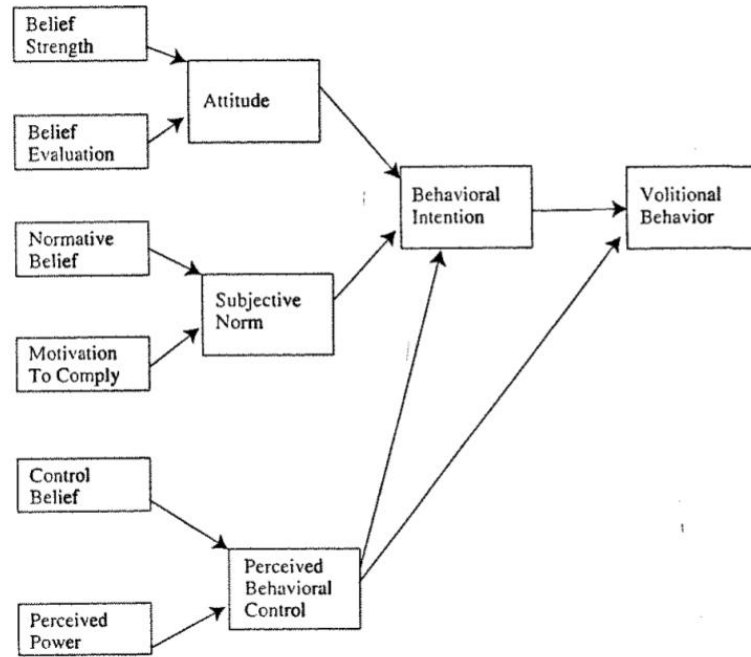
“Each control belief (*c*) is multiplied by the perceived power of the particular control factor to facilitate or inhibit performance of the behaviour, and the resulting products are summed across the *n* salient control beliefs to produce the perception of behavioural control (PBC)”⁵³. In other words, when individuals believe they have little control over performing behaviour due to the lack of requisite resources, then their intentions to perform the behaviour may be low even they have positive attitudes and/or subjective norms (Madden et al., 1992).

Hale et al. (2002) also explained the causal relationship of TRA in detail (Figure 2.7). The complex TPB model also describes the effects of attitude and subjective norms but incorporates with perceived behaviour control to predict intentions and the combined effects of intentions and perceived behaviour control to predict behaviours.

Figure 2.7 Causal Diagram of the Theory of Planned Behaviour

52 Hale et al, 2002, p.277.

53 Ibid, p.197.



Source: Hale, et al (2002), p.278.

Considering that perceived behavioural control “may not be realistic when a person has relatively little information about the behaviour”, “or when new and unfamiliar elements have entered into the situation”⁵⁴(p.185) and sustainable luxury fashion as a new concept consumers might not familiar with, this study chose not to use the TPB but adopted the TRA as the original basis of model.

2.4.3 Theory of Reasoned Action and Theory of Planned Behaviour

The theory of reasoned action and theory of planned behaviour have been widely adopted in understanding consumer behaviour. It is generally believed that the TRA is concerned with rational, volitional, and systematic behaviour (with control), while TPB added ‘perceived behavioural control’ as a determinant of behavioural intention(Hansen et al., 2003). Researchers have investigated specific consumer behaviour in different contexts.

⁵⁴ Ibid, p.185.

Attitude has great effect on purchase intention.

Attitude is also affected by specific many factors in the context of luxury consumption, such as personal factors (Katz, 1960), including the need for uniqueness (NFU) (R. Snyder and L. Fromkin, 1977), the need for conformism (NFC) (McGuire, 1968) and utilitarian motivation (UM)/ hedonic motivation (HM) (Hirschman and Holbrook, 1982). For example, Chihab and Abderrezzak (2016) adopted the theory of reasoned action and found the purchase intention of luxury perfumes in the Algerian context was significantly affected by attitude and explored other factors' (social value, price quality and need for uniqueness)' influence on attitude and purchase intention. Summers et al. (2006) applied the TRA to luxury apparel in America, demonstrating the consistency of traditional TRA, in regards to attitude and subjective norms toward the behaviour influence purchase intention of luxury apparel products.

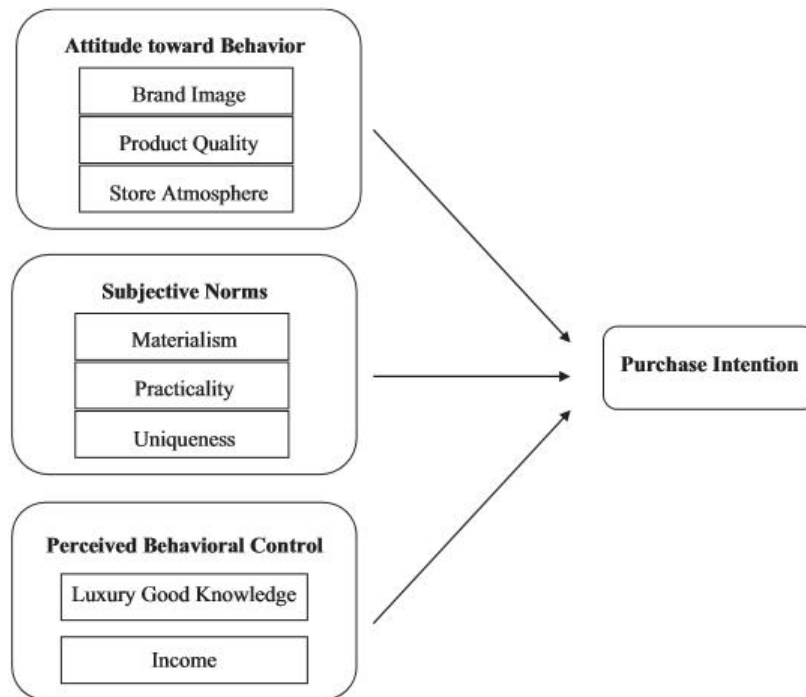
In the context of luxury consumption, Loureiro and de Araújo (2014) argued that the individual values are vital predictors of attitude, behavioural control and subjective norms of TPB, while "social values seem to have only a positive and significant influence on subjective norms and a negative impact on behavioural control" (p.398)⁵⁵. Drawing on the TPB, Social Comparison Theory (SCT), Social Impact Theory (SIT), The Perceived Quality Model and Theory of Uniqueness, Soh et al. (2017) investigated Malaysian Generation Y purchase intention and behaviour toward luxury fashion goods. The findings indicate that "brand consciousness, perceived quality, social influences, traits of vanity and the need for uniqueness influence Generation Y purchase intention, and intention are related with Generation Y behaviour" (p.193)⁵⁶.

Figure 2.8 Application of Theory of Planned Behaviour to

55 Loureiro, Sandra Maria Correia, and Cristiano Mineiro Branco de Araújo. "Luxury values and experience as drivers for consumers to recommend and pay more." *Journal of Retailing and consumer Services* 21(3), 2014. p.398.

56 Soh, Catherine Qian Ying, Sajad Rezaei, and Man-Li Gu. "A structural model of the antecedents and consequences of Generation Y luxury fashion goods purchase decisions." *Young Consumers* 18(2), 2017. pp.180–204.

Chinese Consumers' Purchase Intentions for Luxury Clothing



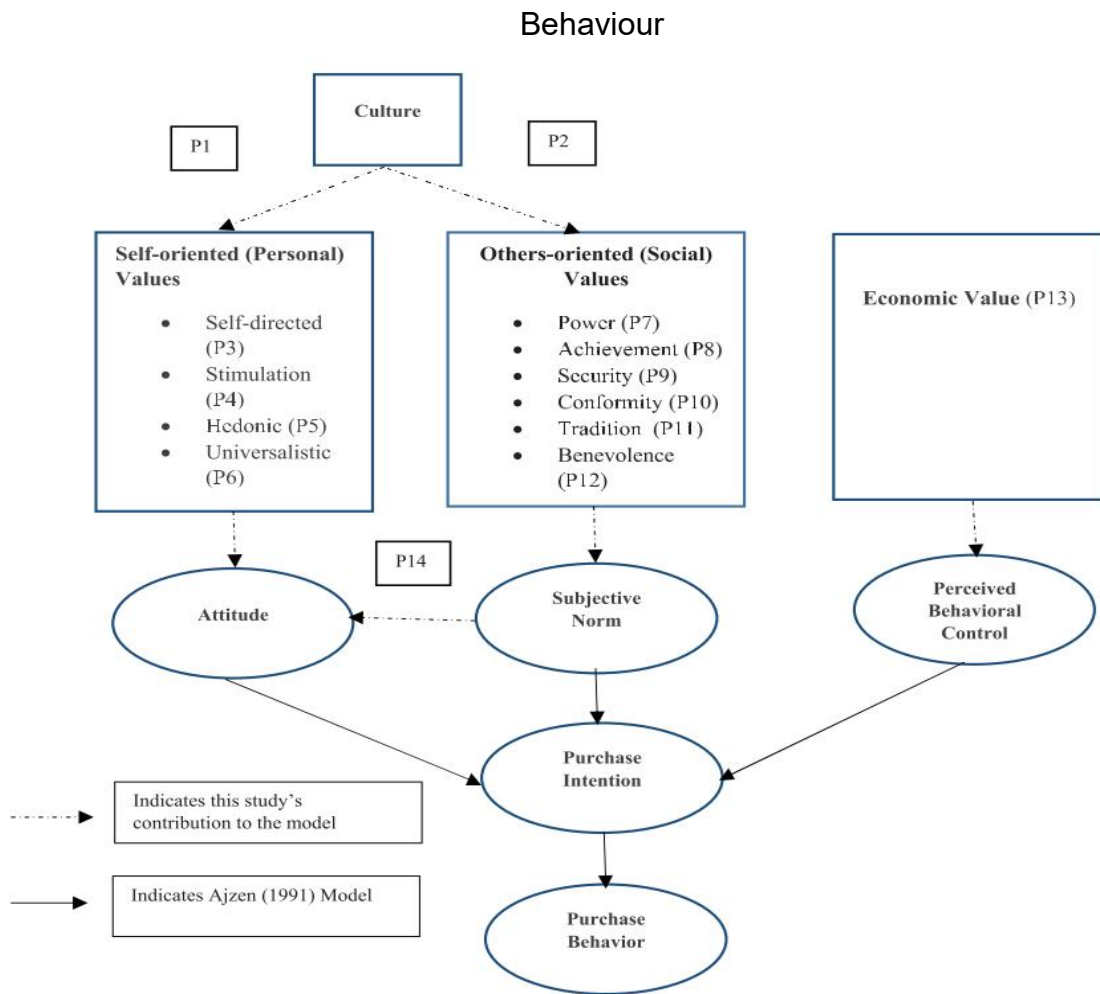
Source: Zhang, 2018, 30(5):339⁵⁷.

Previous scholars pointed out the TPB cannot be applied to China without adjustment (Deng, 2015). In China, one of the very limited researches about luxury consumption is Zhang and Cude (2018)'s examination of luxury purchase intentions (Figure 2.8). Based on the Theory of Planned Behaviour, they examined the impact of attitude toward luxury consumption, subjective norm, and perceived behavioural control variables on Chinese consumers' purchase intentions for luxury clothing. In this study, they compared the purchase intentions of luxury clothing consumers with non-luxury counterparts, indicating that there are significant differences in every aspect between the two groups.

Figure 2.9 Conceptual Framework based on the Schwartz Value

Theory and Theory of Planned

⁵⁷ Zhang, L., and Cude, B. J. Chinese Consumers' Purchase Intentions for Luxury Clothing: A Comparison between Luxury Consumers and Non-Luxury Consumers. *Journal of International Consumer Marketing*, 30(5). 2018. pp.336-349



Source: Jain, S. 2018⁵⁸.

In the domain of sustainable luxury, Jain (2018) is one of the few studies that proposed a framework integrating Schwartz' value dimensions and cultural dimension into Ajzen's TPB and formed a behavioural framework to explain consumer purchasing behaviour for sustainable luxury fashion goods. Culture, self-oriented (personal) values, others-oriented (social) values and economic value are four factors influencing sustainable luxury purchase. Self-oriented values include self-directed value, stimulation value, hedonic value and universalistic value. Others-oriented values include power, achievement, security, conformity,

58 Jain, S. "Factors Affecting Sustainable Luxury Purchase Behaviour: A Conceptual Framework". *Journal of International Consumer Marketing*. 31(2), 2018. p.141.

tradition and benevolence. This provides a holistic view on determinants of sustainable luxury consumer behaviour. The finding (Figure 2.9) shows that an individual's behaviour is based upon his/her intentions to perform the behaviour. Behavioural intention, in turn, is influenced by an individual's attitude toward the behaviour, subjective norm and perceived behavioural control. Further, attitude toward the behaviour is determined by the self-oriented (personal) values, subjective norm is determined by the others oriented (social) values and perceived behavioural control is determined by the economic value. In turn, self-oriented (personal) values and other-oriented (social) values are determined by the culture.

However, the framework should be validated by empirically testing it with large samples across a variety of cultures, and this focus has been limited only to the sustainable luxury fashion segment. The influence of other factors like beliefs, morals, norms, ethics, etc., can also be studied on consumers' attitude, intention and purchase behaviour toward sustainable luxury fashion goods. Future studies may also include the influence of moderator variables such as age, gender, income and education on sustainable luxury purchase behaviour.

The explanation of consumers' unwillingness to buy sustainable luxury, on the other hand, has been explored by scholars (Davies et al., 2012). Prior studies provide the explanations of why consumers do not buy sustainable luxury products. Consumers perceive green luxury products as being of lower quality than other luxury products (Achabou and Dekhili, 2013), and they might negatively evaluate such green luxury brand (Moraes et al., 2012). Even more, consumers' attitudes toward green practice in the luxury industry (such as using the recycled material) is negative, despite the use of organic cotton increases consumer preference (Achabou and Dekhili, 2013) compared the difference between luxury goods and commodity from consumers' perspective, illustrating that 'the importance of ethical condition of production is lower for luxury purchases when compared to commodity purchases.'⁵⁹ (Davies et al., 2012). The reasons consumers care less

59 Davies, Iain A., Zoe Lee, and Ine Ahonkhai. "Do consumers care about ethical-luxury?." *Journal of Business*

about ethical luxury instead of ethical commodity are 'price differential, lack of information, irregularity of purchase, lack of easy availability and relative inability to make a difference'⁶⁰ (Davies et al., 2012). In addition, consumers do not want to nor have the time for searching such information (Young et al., 2010).

Luxury companies sustainability initiatives might influence consumers' preferences and purchasing behaviour (De Angelis et al., 2017). Carfagna et al. (2014) first mentioned 'eco-habitus' which means the environmental practices are collective strategies of consumption and hardly individual on various dimensions. De Angelis et al. (2017) explored consumers' interest in environmentally sustainable luxury products based on two strategies; results showed consumers would be affected by the design of new green luxury products. Only consumers with high knowledge about luxury brand prefer a new green luxury product, which means brand knowledge can affect influence brand preferences. Another finding is that consumers would purchase new ephemeral luxury products (short-lived or seasonal items) instead of their durable counterparts; therefore, the luxury industry should focus on those new designs (De Angelis et al., 2017). Further, status motives increased desire for green products when shopping in public (to show off) and even when green products cost more (but not less) than non-green products, status competition can be used to promote environmental behaviour (Griskevicius et al., 2010). Yet despite the increasing awareness, consumers expect luxury brands to be sustainable but not show that they are. Informants expect luxury brands would put their marketing power into the promotion of good causes and give back to nature and society (Cervellon, 2013).

However, researchers have neglected to study how luxury green practices or sustainable luxury products might affect consumers' attitude and purchase behaviour. Furthermore, cultural context was important to consumers' attitude toward sustainability in luxury fashion sector, but they are mainly conducted their research in developed societies

Ethics 106(1) , 2012. pp.37-51.

60 Ibid. p.43.

rather than emerging developing countries. Therefore, it is worth exploring whether consumers in emerging market like China perceive high value of sustainability in terms of luxury fashion industry. Table 2.4 shows the literature on sustainable luxury and research outcomes.

Table 2.4 Research on Sustainable Luxury and Consumer Behaviour

	Author	Title	Methodology	Research Outcome
1	Joy, A., et al. (2012)	Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands	Interview with respondents aged 20-35 in Hong Kong and Canada	Young consumers separate luxury fashion with sustainability.
2	Davies, I. A., Lee, Z., and Ahonkhai, I. (2012).	Do consumers care about ethical-luxury?	Structured interviews (a quota sample of 199 UK consumers on the main shopping streets of two cities in the UK)	Consumers' propensity to consider ethics is significantly lower in luxury purchases when compared to commoditized purchases and explores some of the potential reasons for this reduced propensity to identify or act upon ethical issues in luxury consumption.
3	Cervellon, M. C., & Shammas, L. (2013).	The value of sustainable luxury in mature markets: A customer-based approach.	Interview 8 volunteers in each country from France, Italy, UK and Canada. A visual elicitation technique, the ZMET technique.	The value of sustainable luxury encompasses three categories, socio-cultural values (conspicuousness, belonging and national identity), ego-centred values (guilt-free pleasures, health and youthfulness, hedonism, durable quality) and eco-centred values (doing good, not doing harm).
4	Cervellon, M. C. (2013)	Conspicuous conservation: Using semiotics to understand sustainable luxury.	14 informants interview by semiotics tools (Peirce's and Greimas' paradigms)	The luxury clientele opposes 'ascribed luxury' (discreet and emphasising traditional manufacturing techniques) to 'achieved luxury' (conspicuous and marketed)
5	Carfagna, L. B., et.al. (2014)	An emerging eco-habitus: The reconfiguration of high cultural capital	Both quantitative survey as well as four qualitative case studies	Environmental practices are hardly individual. Rather, they are collective strategies of consumption – coined 'eco-habitus.'

		practices among ethical consumers.		
6	Janssen, C., Vanhamme, J., Lindgreen, A., & Lefebvre, C. (2014).	The Catch-22 of responsible luxury: Effects of luxury product characteristics on consumers' perception of fit with corporate social responsibility.	A field experiment	Enduring products (e.g., jewelry) is perceived as more socially responsible and provokes positive attitudes while ephemeral luxury products (e.g. clothing) is the opposite.
7	Han, J., et al., 2016	Staging luxury experiences for understanding sustainable fashion consumption: A balance theory application	Focus group interviews and direct observation sandpost-behaviour interviews of staged shopping trips—each participant was given money (approx. USD \$180) to spend in the two eco-fashion stores.	Marketers can encourage consumers to become strongly oriented toward sustainable fashion product consumption (SFPC). Developing and staging memorable consumer-centered experiences that orient consumers toward SFPC encourages the consumers achieving desired balance states.
8	De Angelis, M., Adigüzel, F., & Amatulli, C. (2017).	The role of design similarity in consumers' evaluation of new green products: An investigation of luxury fashion brands.	Questionnaire Survey	The recommended strategy is to make the new green luxury product similar to the luxury company's previous models rather than to models made by green companies, especially for consumers who are knowledgeable about the brand and for products that are durable rather than ephemeral.
9	Han, J., Seo, Y., & Ko, E. (2017)	Staging luxury experiences for understanding sustainable fashion consumption: A balance theory application	Focus group interview and direct observations and post-behaviour interviews with South Korean fashion consumers.	An attitude-behaviour gap exists in sustainable fashion that creates a state of psychological imbalance. Fashion consumers' limited awareness and knowledge about sustainable fashion products may promote negative sentiments toward SFPC. Developing and staging consumer-centered experiences help balance the psychological imbalance occurring in the attitude-behaviour gap between sustainability concerns and SFPC behaviours.

10	Chungwha Ki Kangbok Lee Youn-Kyung Kim , (2017)	Pleasure and guilt: how do they interplay in luxury consumption?	521 usable data from consumer panelists of a commercial online survey company.	The mixed emotions of pleasure and guilt are significant double mediators for conspicuous consumption; consumption not only as a pleasure-enhancing but also as a guilt-reducing mode of consumption in the luxury context.
11	Pinto, D. C., Herter, M. M., Gonçalves, D., & Sayin, E. (2019)	Can luxury brands be ethical? Reducing the sophistication liability of luxury brands.	Questionnaire survey: one pilot study (121 participants from online panel) and two experimental studies with 175 participants online and 106 participants undergraduate students	Consumers perceive sophisticated brands as less ethical than sincere brands when their social identity goals are salient (i.e., they focus on their social relationships); however, when consumers personal identity goals are salient (i.e., they focus on themselves), they perceive sophisticated brands as equally ethical as sincere brands. Luxury brands' CSR actions should focus on the firms' own consumers whereas sincere brands' CSR actions should focus on society in general.

Source: Author's Compilation.

In spite of the limited number of prior literature, the following models can represent the current state of sustainable luxury consumption, table 2.5 summarised the model measurements and findings:

Table 2.5 Literature Review of Purchase Intention Models on Sustainable Luxury

Authors	What it measures	Methodology	Summary of factors and items in measurements and results	Implications or contributions
Park, J., Ko, E., & Kim, S. (2010)	luxury brand value, brand image, customer satisfaction with green marketing activities, brand attitude, purchase intention, environmentally concerned consumption behaviour, purchase experience of luxury goods,	Questionnaire survey: collecting 200, 121 and 203 questionnaires from US, Japan and Korea, respectively.	Luxury brand value has positive effect on luxury brand image, and luxury brand image has positive effect on satisfaction with green marketing activities for luxury brand.	The results offered information on luxury brand's green marketing and provided useful data for luxury brands that are planning to begin green marketing, particularly targeting American, Japanese and Korean

	and demographic characteristics			consumers similar to the sample of the present study.
Hyun Ju Lee and Seong-Yeon Park (2013)	Value and self-concept Cultural values and green consumption behaviour	Focus group and in-depth Interview (female participants in their 20s –30s, who are most likely to have participated in green behaviour.)	Psychological, sociocultural, and product-related factors were the factors driving consumers' desire to participate in the green consumption culture.	Comprehensively organized previous fragmentary research on green consumption, broadening the scope of study on the subject; contributes to the research in its use of qualitative approaches, which enable eliciting deep consumer psychology and behaviour; provides important guidelines for companies
Ki, C. W., and Kim, Y. K. (2016)	intrinsic values (i.e., seeking personal style and social consciousness) and extrinsic values (i.e., seeking latest fashion, public self-consciousness, and status consciousness)	Quantitative : Structural equation modeling (SEM) analysis based on 452 responses	Sustainable luxury purchase predicted positive affect more strongly than did conspicuous luxury purchase stressing the importance of sustainable purchase in creating positive emotional responses toward luxury brands, which ultimately lead to repurchase intention	Luxury marketers should focus on building fair working conditions and convey their ethical manufacturing practices to communicate their corporate social responsibility ; proactively engage in social media marketing to convey their new standard of sustainable aspect.
Jain(2018)	culture, self-oriented value (personal), others-oriented (social) value, economic value	Literature review	Culture, self-oriented value (personal), others-oriented (social) value, economic value influence sustainable luxury purchase behaviour.	This study integrate cultural dimension as well as Schwartz' value dimensions into Ajzen's TPB and present a behavioural framework that can help better understand, analyze and explain consumer

				purchasing behaviour for sustainable luxury fashion goods.
Pinto, Diego Costa, et al, (2019)	Brand personality (sophisticated vs sincere), perceived brand ethicality, identity goals (social vs personal), Corporate Social Responsibility focus, and brand attitude.	Quantitative : Questionnaire survey with 175 U.S. participants in study one and 106 undergraduate students in study two.	Consumers perceive sophisticated brands as less ethical than sincere brands when their social identity goals are salient (i.e., they focus on their social relationships); however, when consumers personal identity goals are salient (i.e., they focus on themselves), they perceive sophisticated brands as equally ethical as sincere brands. Finally, we also show that luxury brands' CSR actions should focus on the firms' own consumers whereas sincere brands' CSR actions should focus on society in general.	This research contributes to the literature on sustainability by demonstrating when and how sophisticated brands can engage in socially responsible practices like CSR and cleaner production

Source: Author's Compilation.

2.4.4 The Theory of Value and Value Consumption

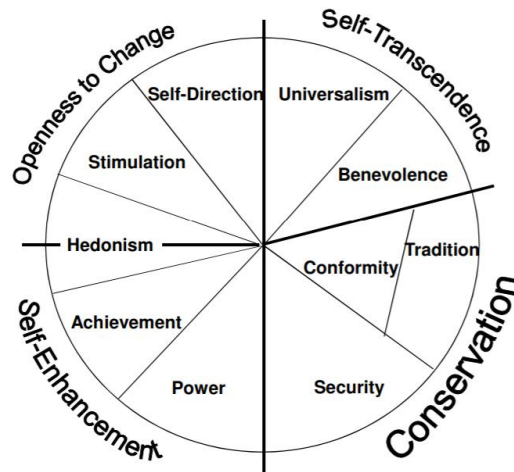
(1) The Theory of Value

Values are defined as “concepts or beliefs, pertaining to desirable end states” (Schwartz and Bilsky, 1987, p. 551)⁶¹. The Schwartz Value Theory (Schwartz, 1992) first identified human values, which include ‘(1) concepts or beliefs, (2) pertain to desirable end states or behaviours, (3) transcend specific situations, (4) guide selection or evaluation of behaviour

⁶¹ Schwartz, S. H., and Bilsky, W. Toward a universal psychological structure of human values. *Journal of personality and social psychology*, 53(3), 1987. p.550.

and events, and (5) are ordered by relative importance.’(p.9) ⁶²

Figure 2.10 Theoretical Model of Relations among Ten Motivational Types of Value



Source: Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values[J].

Online readings in Psychology and Culture. 2(1), 2012. p9.

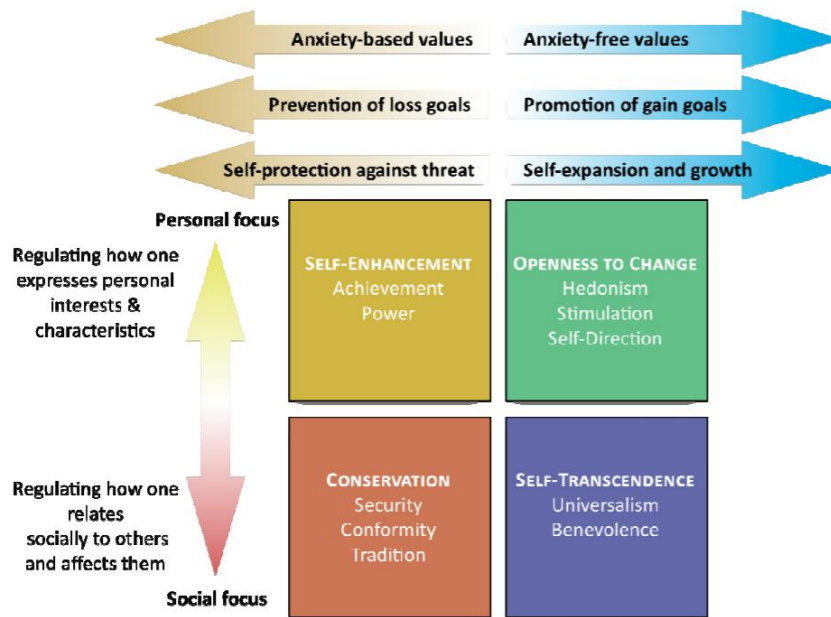
Then Schwartz (1992) argued that security, conformity and traditional values belong to conservation, as the **figure 2.5** shows below. The hedonism value ‘shares elements of both openness to change and self enhancement.’ (p.9) ⁶³.

Later, Costa Pinto et al. (2016) extended the Schwartz Value Theory in terms of green consumption, and explained how values may lead to purchase intention and how personal and social values change the effect of specific values on purchase intentional behaviour.

Figure 2.5 Dynamic Underpinnings of the Universal Value Structure

62 Schwartz, Shalom H. Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In *Advances in experimental social psychology*, 25, 1-65.1992. Academic Press.

63 Ibid, p.9.



Source: Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values.

Online readings in Psychology and Culture.2012,2(1):p13.

10 motivationally distinct values can be categorized into four broad types: (Figure 2.5)

- “1. Self-enhancement (power, achievement, hedonism; promoting the pursuit of one’s own interests;
2. Self-transcendence (universalism, benevolence), which emphasizes concern for the welfare of others;
3. Conservation (security, tradition, conformity) that emphasizes the protection of the status quo; and
4. Openness (self-direction, stimulation, hedonism), or encouraging the pursuit of new ideas and experiences.”⁶⁴.

64 Schwartz, S. H. “An overview of the Schwartz theory of basic values”. *Online readings in Psychology and Culture*. 2(1), 2012. p.13.

(2)The Theory of Perceived Value and Value Consumption

Perceived value is considered an important construct in marketing research (Holbrook, 1987; Sweeney and Soutar, 2001). It is defined as the consumers' overall evaluation of the worth of a given product based on their subjective perceptions (Zeithaml, 1988). The first unidimensional approach of perceived value argues utility maximisation drives behaviour (Tanrikulu, 2021). Consumers make this assessment by comparing the benefits they receive from products or services to what they must give up (Holbrook, 1994). However, this approach is simple and limited when explaining perceived value because consumers' perceived value is comparative, personal, and situational (i.e., specific to the context) (Sánchez-Fernández and Iniesta-Bonillo, 2007).

The theory of consumption values (TCV) (Holbrook, 2006; Sheth *et al.*, 1991; Sweeney and Soutar, 2001) is an integrated model that explains why consumers prefer a product or brand. Additionally, their consumption is based on various consumer values, such as emotional, functional, social, conditional, or epidemic values (Sheth *et al.*, 1991). The theory assumes that consumer behaviour is influenced by multiple and independent values, with each value contributing differently to any given choice. Scholars have utilised the TCV to explain consumer behaviour and identify consumer perceptions among different product categories (Goncalves *et al.*, 2016), including sustainable consumption (Ali *et al.*, 2019; Awuni and Du, 2015; Biswas and Roy, 2016b). Although the TCV has made contributions to consumer behaviour in the literature, it is criticised for different reasons (Tanrikulu, 2021). One of the main critiques concerns epistemic value and conditional value. Unlike the TCV, Sweeney and Soutar (2001) developed a perceived value scale (called PERVAL) and generated a model of three value dimensions at the brand level—functional, social, and emotional. It posited that epistemic and conditional values do not fit durable commodities. Epistemic value is particularly likely in the case of experiential services such as holidays, adventures, or trips and is less important for purchasing durable products. The less important role of conditional value is mainly due to value being described as a special case

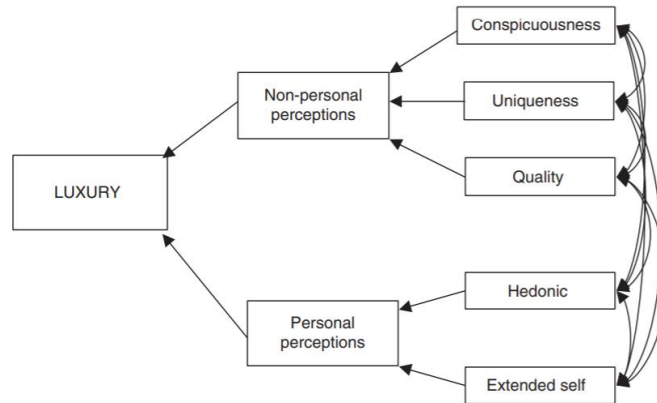
of other values (functional value and emotional value) (Sweeney and Soutar, 2001). Awuni and Du (2015) provided evidence that conditional and epistemic values are not significantly related to sustainable purchase intention in China. Therefore, in the current study, considering the durable characteristics of luxury goods and China's sustainable consumption context, we adopted Sweeney and Soutar's (2001) PERVAL to predict and explain consumer attitude and purchase intention towards sustainable luxury goods and services in China. Specifically, perceived functional value addresses consumers' expectation of high value for money and quality from luxury items and sustainable products (Biswas and Roy, 2015b; Li *et al.*, 2012). Perceived social value is the measure of an individual's desire to be recognised or accepted by others or to impress others (Sheth *et al.*, 1991). Perceived hedonic value is measured as an inner benefit, as it enables individuals to satisfy their psychological needs (Vigneron and Johnson, 2004).

(3) Theory of Value in Luxury

Vigneron and Johnson (2004) proposed the framework of luxury brand index (Figure 2.11) and identified five characteristics of luxury including 'conspicuousness, uniqueness, quality, hedonic and extended self'⁶⁵(p490).

Figure 2.11 Framework of Brand Luxury Index

⁶⁵ Vigneron, Franck, and Lester W. Johnson. "Measuring perceptions of brand luxury." *Journal of brand management* 11(6), 2004. pp.484-506.



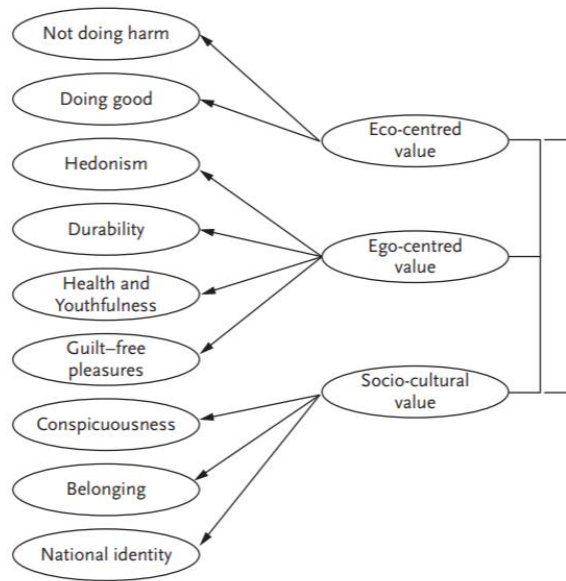
Source: Vigneron, 2004. p490.

Consumers' perceived values of luxury and motives for consumption are not limited to personal emotional value or hedonic value, which refers to an inner benefit and it gratifies the internal self (Vigneron and Johnson, 2004), but the desire to be recognised, accepted by others or impress others, expressing social status that is basically linked to social value. Social value in luxury consumption denotes that consumers' perceived utility gained from luxury products within one or more social groups, such as conspicuousness and prestige value, that may significantly influence the attitude and purchase intention or consumption of luxury brands (Chattalas and Shukla, 2015; Sheth et al., 2011; Vigneron and Johnson, 2004).

Uniqueness value is seen as a personal-level or psychological trait that reflects an individual's need to differentiate himself/herself from others (R. Snyder and L. Fromkin, 1977). Luxury products, by providing differentiated attributes such as distinctive features, and exclusivity and prestige appeal, can satisfy consumers' uniqueness value (Knight and Kim, 2007; Simonson and Nowlis, 2000; Vigneron and Johnson, 2004).

Consumers also expect value for money or economic value from luxury items and sustainable products (Biswas and Roy, 2015; Li et al., 2012). Consumers expect a high value for money with the large amount of money spent on luxury products (Yang et al., 2017). Value for money for sustainable products is the overall assessment of consumers' perceived utility based on their perception about the price concern (Biswas and Roy, 2015).

Figure 2.12 The value of sustainable luxury in mature markets: a framework



Source: Cervellon, M. C., & Shammass, L. The value of sustainable luxury in mature markets:

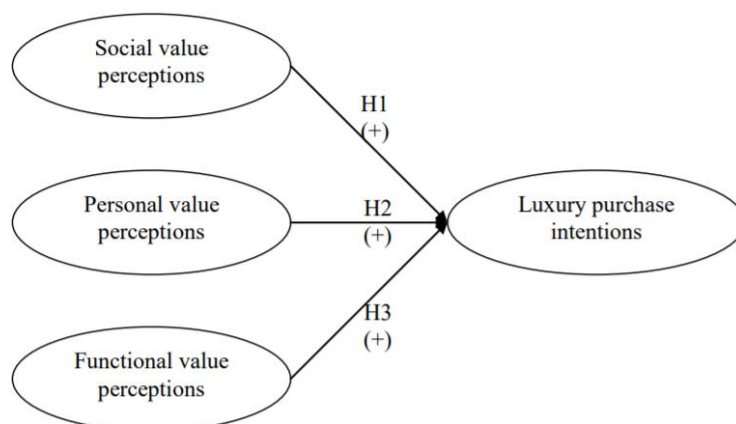
A customer-based approach. *Journal of corporate citizenship*, (52), 2013. p.94.

However, in the domain of sustainable luxury, very limited research has proposed value dimensions that drive consumers' attitude and purchase intention. Previous studies found young consumers separate luxury fashion with sustainability (Joy et al., 2012). Cervellon and Shammass (2013) is one of the rare studies that has examined the value of sustainable luxury from consumers' perspective as 'socio-cultural values (conspicuousness, belonging and national identity), ego-centred values (guilt-free pleasures, health and youthfulness, hedonism, durable quality) and eco-centred values (doing good, not doing harm).' (Figure 2.12). Aliyev et al. (2019) reviews the effects of value perceptions on green and luxury product purchasing from 'conspicuousness, hedonism, uniqueness, quality and extended self' values.

By contrast, Han, et al. (2016) applied a balance theory by conducting focus group interviews and direct observation sand post to understand luxury fashion consumption. The

findings show stimulation by luxury marketers could get consumers strongly involved into sustainable luxury consumption. The memorable consumer-centered experiences from the study would achieve desired balance states.

Figure 2.13 Model of Luxury Purchase Intentions



Source: Chattalas, M., & Shukla, P. (2015). p46.

The value perceptions positive effects' on luxury purchase intentions have been widely discussed. Chattalas and Shukla (2015) measured the impact of value perceptions on luxury consumption purchase intentions (Figure 2.13). Focusing on consumers in the UK and the USA, the authors suggested that while functional value perceptions drive luxury consumption purchase intentions across both nations, social value has a significant contribution only among US consumers, while personal value perceptions significantly contributed only in the UK. Similarly, Salehzadeh and Pool (2017) provided support that perceived social, personal, and functional values can affect consumers' intention to purchase luxury goods in Iran.

(4) Theory of Value in Sustainable Luxury Fashion

Although the perceived value of luxury consumption has been explored by

cross-cultural dimensions (Wiedmann et al., 2007), extending the value on sustainable luxury is still limited. Vigneron and Johnson (1999) proposed five perceived values including conspicuous value, unique value, social value, emotional value, and quality value, that significantly affect consumer decision processes. Cervellon and Shammass (2013a) pointed out the values of sustainable luxury encompass three categories including socio-cultural values (conspicuousness, belonging and national identity), ego-centred values (guilt-free pleasures, health and youthfulness, hedonism, durable quality) and eco-centred values (doing good, not doing harm). Lundblad and Davies (2016) conducted in-depth interviews to understand sustainable fashion consumption and concluded key features of sustainable fashion such as “uniqueness, durability, natural materials and perceived health benefits”⁶⁶, should be highlighted to attract new consumers. Ki and Kim (2016a) based on Self-Determination Theory, found consumers’ intrinsic values (i.e., seeking personal style and social consciousness) and extrinsic values (i.e., seeking latest fashion, public self-consciousness, and status consciousness) affect sustainable luxury purchase. Jain (2018) proposed four value dimensions—culture, self-oriented value (personal), others-oriented (social) value, economic value influence sustainable luxury purchase intention by integrating the Schwartz value theory and theory of planned behaviour.

In recent years, several studies within marketing and consumer research have highlighted consumer concerns about sustainable luxury as consumers began to spend money intelligently with more moral concerns (Cervellon, 2013). Consumers use luxury consumption to enhance status and power, which might cause violating social norms related to responsible and sustainable consumption (Beckham and Voyer, 2014). According to consumers’ background, Joy et al. (2012) analyzed the perception of consumers in Hong Kong and Canada, and found that young consumers separate luxury fashion from sustainability even though they tend to be more ethical. Sustainability is perceived by

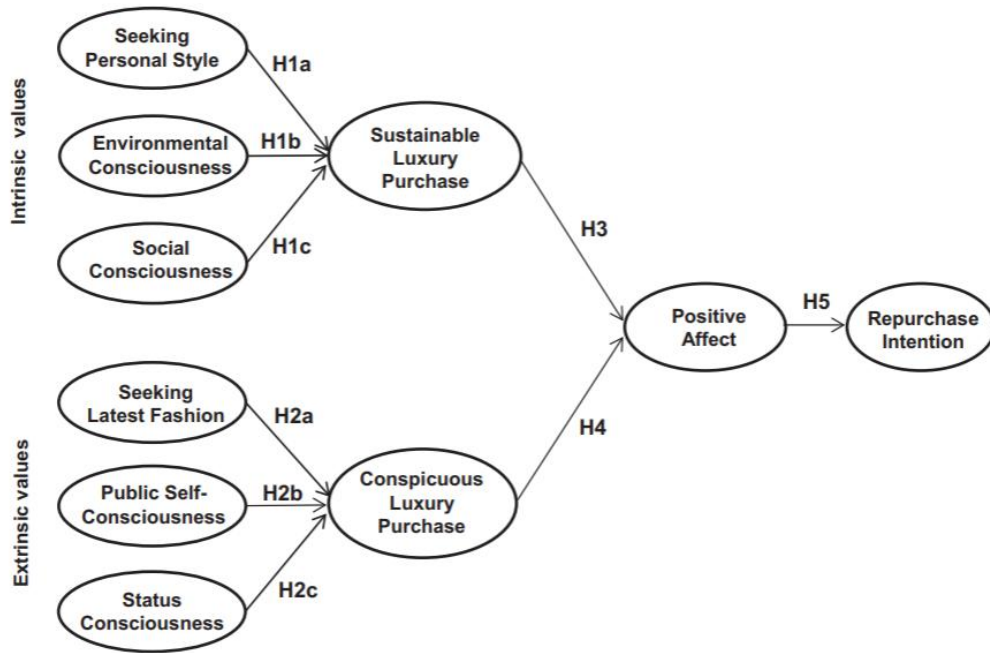
⁶⁶ Lundblad, Louise, and Iain A. Davies. "The values and motivations behind sustainable fashion consumption." *Journal of Consumer Behaviour* 15(2), 2016. p.160.

consumers as a complementary model to luxury, especially among the wealthy (Cervellon, 2013).

Ki et al. (2017b) identified the positive and negative emotions consumers have from luxury consumption, 'while guilt per se reduces consumers' repurchase intent, the interaction of pleasure and guilt enhances their tendency to repurchase luxury as pleasure offsets the adverse effect of guilt'. Since the late-2000s global financial crisis, consumers have been in search of new ways to indulge without guilt, and demonstrate status without shame (Davies et al., 2012). Sustainable organisations must elicit positive emotions in certain target groups through the information on the environmental attributes of the products (Griskevicius et al., 2010).

Ki and Kim (2016a), based on Self-Determination Theory, examined consumers' intrinsic values (i.e., seeking personal style and social consciousness) and extrinsic values (i.e., seeking latest fashion, public self-consciousness, and status consciousness) can explain their sustainable luxury purchase (Figure 2.14). This implies consumers tend to take luxury organisation's sustainable practices into account when buying goods. However, consumers' environmental consciousness did not support the buying behaviour, which indicates that consumers still put traditional values first as their purchase criteria with environmental issues behind those factors.

Figure 2.14 : Model of Intrinsic and Extrinsic Values Affecting Sustainable Luxury Purchase.



Source: Ki and Kim, (2016)⁶⁷. p.311.

However, this study is limited to luxury fashion products with consumers from the United States. Whether it fits into other cultures should be further discussed. The author suggested future researchers should advance the scale of sustainable luxury purchase through rigorous qualitative and quantitative methods.

2.5 Hypotheses Development and Research Model

2.5.1 Contextual Factor

A number of contextual factors may facilitate or constrain environmental motivations or behaviour (Steg and Vlek, 2009). In the context of sustainable consumption, Wang et al. (2014) pointed out consumers' sustainable consumption behaviour is more likely to be

67 Ki, Chung - Wha, and Youn - Kyung Kim. "Sustainable versus conspicuous luxury fashion purchase: Applying self-determination theory." *Family and Consumer Sciences Research Journal*, 44(3), 2016. pp. 309-323.

affected by contextual factors including financial incentives, indicating that consumers always choose alternatives with highest benefits. They believed specific contextual factors should be added into the framework to improve the explanatory power of the model in explaining sustainable consumption in China. Previous studies have suggested contextual factors including policy incentives, availability of facilities, others' behaviour, publicity, government initiatives, the price of green products may influence sustainable intentions (Biswas and Roy, 2015; Wang et al., 2014). The government play two roles in shaping consumers' behaviour: measures of the first one are through "regulations and standards, market instruments and planning" while the other seeks to influence consumers through "information, education and other psychological measures" (Jackson and Michaelis, 2003, p 56.)⁶⁸ In the present study, publicity, others' behaviour, policy incentives and regulations are taken into consideration that may affect behavioural intentions. Thus, hypothesis is formed:

H1: Contextual Factor has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H2: Contextual Factor has a significant influence on Chinese consumers purchase intention on sustainable luxury fashion products.

2.5.2 Hedonic Value

Hedonic value or emotional value refers to an inner benefit and it gratifies the internal self (Vigneron and Johnson, 1999, Wong and Ahuvia ,1998). Hirschman and Holbrook (1982) first introduced the hedonic theory of various dimensions of consumption which is individually different. Hedonic purchase behaviour is mainly focused on non-tangible benefits and features like "the feelings of bliss, contentment, and ecstasy for the self, which is contrasted to the relational qualities of caring, love and interpersonal warmth that

68. Jackson, T., & Michaelis, L. Policies for sustainable consumption. *Sustainable Development Commission, London.*, 2003. p.56

dominate other-directed pleasure"⁶⁹ (Tsai, 2005, p430). Consumers purchase luxury goods and experiences to fulfill hedonic needs, and they perceive hedonic value aspects to be significant to their perception of luxury value (Henninger et al, 2017, Wiedmann et al., 2009). Voss et al. (2003) proposed that hedonic dimensions of attitude are related to customer purchase intention. In addition, hedonic values, in relation to environmentally relevant beliefs, play an additional role in understanding environmentally relevant beliefs, attitudes, preferences, and behaviours (Steg et al., 2014). Meanwhile, the hedonic dimensions of luxury products also entails consumers' negative feelings, guilt in particular, because an unnecessary or extravagant expenditure is difficult to justify oneself, or takes place especially during economic downturn (Burnett and Lunsford, 1994; Cervellon and Shammass, 2013b; Ki et al., 2017a) . However, Ki and Kim (2016b) note that guilt is a trigger of consumers' sustainable luxury purchase behaviour. If a luxury brand incorporates sustainable practices, or collaborated with charities (Hagtvedt and Patrick, 2016), the sense of guilt from consumers can be reduced. Consumers can thus compensate for the negative feelings and achieve guilt-free purchase enjoyment.

H3: Hedonic value has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H4: Hedonic value has a significant influence on Chinese consumers purchase intention on sustainable luxury fashion products.

2.5.3 Uniqueness Value

The concept of consumers' need for uniqueness derives from Snyder and Fromkin's (1977) theory of uniqueness. The need for uniqueness is seen as personal-level or psychological trait that reflects individual's need to differentiate themselves from others (R. Snyder and L. Fromkin, 1977). Tian and Bearden(2001) defined consumer's need for

69 Tsai, Shu-pei. "Impact of personal orientation on luxury-brand purchase value: An international investigation.". *International Journal of Market Research* 47(4), 2005. pp.427-452.

uniqueness as 'an individual's pursuit of differentness relative to others that is achieved through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's personal and social identity'(p.50). Empirical studies show that the need for uniqueness can significantly influence consumer's purchase intention (Bian and Forsythe, 2012; Simonson and Nowlis, 2000; Workman and Kidd, 2000)

Unique products can satisfy customers need for uniqueness (Simonson and Nowlis, 2000) and luxury brands can provide distinctive attributes such as distinctive features; exclusivity and prestige appeal (Giacalone, 2006; Knight and Kim, 2007; Vigneron and Johnson, 2004). Giacalone (2006) argued that an important feature of luxury goods is the scarcity attribute.

Previous studies have divided consumers with the need for uniqueness into three groups based on counter-conformism motivation; namely consumers who seek for 'avoidance of similarity', 'creative choice' and 'unpopular choice' (Tepper Tian et al., 2001). The first group is those who want to 'avoid similarity with others' (Amaldoss and Jain, 2005). The attribute of this group is that people see a product's value decrease as the number of people using the same product increases (Amaldoss and Jain, 2005). For instance, consumers may intend to buy discontinued styles or in vintage stores (Tepper Tian et al., 2001). Thompson and Haytko (1997) mentioned the characteristic of these consumers can be measure by asking 'Usually if something is hot, I'll go out of my way to stay away from it. Even if I like it at first, if everyone's wearing it, I don't want to be wearing it' ⁷⁰(p.21).

The second dimension of uniqueness is consumer's 'creative choice counter-conformity motivation' which means that consumers seek to be social different from others but make selections likely to be considered as good decisions by others (Tepper Tian et al., 2001). Buyers tend to find reasons or explanations when they make unconventional purchase decisions (Simonson and Nowlis, 2000; Xu and Schwarz, 2009). In a positive way, they care

70 Thompson, Craig J., and Diana L. Haytko. "Speaking of fashion: consumers' uses of fashion discourses and the appropriation of countervailing cultural meanings." *Journal of consumer research* 24(1), 1997. pp.15-42.

about others' acceptance in this group (Simonson and Nowlis, 2000); thus some customers tend to prefer luxury brands which can provide a prestige image or other distinct attribute to satisfy their NFU (Knight and Kim, 2007; Vigneron and Johnson, 2004). Customers may choose products to extend the uniqueness from using them creatively (Tepper, 1996) or assembling components to be different (Belk et al., 1989). Another reason for making creative decisions is sharing a common connection with early adopters (Fisher and Price, 1992).

The final group of consumers is seeking unpopular choice of goods which means that the decisions made by these consumers are not favourable among others, or the products are unacceptable from to others in order to show differentness (Tepper Tian et al., 2001). Ziller (1964) demonstrates that people would prefer to act in a negative way when they fail to differentiate themselves in a specific manner. These consumers do not care about others' criticism, i.e., they tend to purchase products that are novel or unconventional and rejected by others (Simonson and Nowlis, 2000).

Statistics show that only a small group of Chinese consumers can afford luxury products (Zhan and He, 2012) which consolidate the uniqueness of luxury brands among Chinese consumers. High-uniqueness consumers, different from members of his or her reference group (Snyder and Fromkin 1980, p. 107), have more intention to purchase scarce products including luxury products and famous brands (Zhan and He, 2012) than low-uniqueness consumers (Lynn, 1992; Snyder, 1992) and would like to choose products that others do not like to buy (Worchel et al., 1975).

Researchers also have demonstrated a significant and fundamental role played by the uniqueness value in shaping the attitude and behaviour intention of luxury consumption (Shukla and Purani, 2012; Srinivasan et al., 2014; Tak and Pareek, 2016). Consumers' need for uniqueness is seen as a personal-level or psychological trait that reflects individuals' need to differentiate themselves from others (R. Snyder and L. Fromkin, 1977). Luxury products, by providing differentiated attributes such as distinctive features; exclusivity and

prestige appeal, can satisfy consumers' uniqueness values (Knight and Kim, 2007; Simonson and Nowlis, 2000; Vigneron and Johnson, 2004). Consumers seek for avoidance of similarity, creative choice or unpopular choice from luxury goods (Tepper Tian et al., 2001), as luxury provides prestige image or other distinct attributes (Vigneron and Johnson, 2004; Wiedmann et al., 2007). Thus,

H5: Uniqueness value has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H6: Uniqueness value has a significant influence on Chinese consumers purchase intention on sustainable luxury fashion products.

2.5.4 Social Value

Social value is the perceived utility derived from consumers' association with social groups (Biswas and Roy, 2015). Many researchers suggested that social value plays an important role in shaping consumers purchase intention (Bonfield, 1974; Zhan and He, 2012), especially when products are seen as luxury goods (Amaldoss and Jain, 2008). Social value is people's desire to possess luxury fashion brands that may serve as symbolic value of social groups (Vigneron and Johnson, 2004). In other words, consumers purchase products according to the symbolic meaning and the suggestions from social groups (Wiedmann et al. 2007). Their behaviour is subject to pressures from social groups such as family members, friends, etc. (Amaldoss and Jain, 2008; Bearden and Etzel, 1982; Shukla and Purani, 2012). Chuang et al. (2012) made it clear that reference group members significantly influence consumers to choose compromise option when divergence comes out. Consumers choose luxury brands as a cue to match their social groups (Han et al., 2010) or to conform to their professional position or demonstrate their social status (Nia and Zaichkowsky, 2000). Chattalas and Shukla (2015) suggest that if purchasing luxury goods is

considered socially appropriate, consumers may have to undertake such behaviour to fit the social standards. This will help gain social approval or improve impressions in the eyes of the significant others.

Consumers may use luxury fashion brands to conform to their professional position or to demonstrate their social status (Nia and Zaichkowsky, 2000). Luxury fashion brand consumption can serve as an effective method of conforming to the conventions of a specific social class.

Based on the individualism-collectivism culture dimension (Hofstede, 1983), social value-driven motivations were found to be more salient in collectivist cultures which is defined as 'a social pattern that consists of individuals who see themselves as an integral part of one or more collectives, such as family and friends'⁷¹ (p266). Chinese culture is characterised as collectivist (Trafimow et al., 1991). Hui and Triandis (1986) propose that Chinese people care about relationships by keeping together with the group and trying to avoid rejection. Face culture have great influence on Chinese consumers consumption values due to the social prestige need, which can generate bandwagon effect (Jap, 2010).

In the domain of sustainable consumption, Sanders and Simons (2009) defined social value as the value "fuelled by aspirations for longer term, humanistic, and more sustainable ways of living." ⁷²(p1.) Social value has a strong potential for changing sustainable ways of living through interaction process and it is also very challenging to engage people in this type of value co-creation (Hirscher et al., 2018).

H7: Social value has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H8: Social value has a significant influence on Chinese consumers purchase intention on

71 Lee, Julie Anne, and Jacqueline J. Kacen. "Cultural influences on consumer satisfaction with impulse and planned purchase decisions." *Journal of Business Research* 61(3), 2008. pp.265-272.

72 Sanders, Liz, and George Simons. "A social vision for value co-creation in design." *Open Source Business Resource* December 2009. p.1.

sustainable luxury fashion products.

2.5.5 Value for Money

Value for money is defined as consumers' perception about a product's benefits or performance relative to its price (Holbrook, 1994). Although luxury goods have symbolic value and hedonic value, consumers seek economic value in purchasing luxury products (Li et al., 2012). With regard to luxury products, consumers perceive luxury fashion to be of high quality as the premium price plays a positive role (Lichtenstein et al., 1988; Tellis and Gaeth, 1990). In line with the previous study, the value for money concerns consumers' subjective evaluation for the high price paid for the luxury products (Aw et al., 2021). In other words, it is the perception of whether or not the luxury fashion item that was obtained satisfies consumers' expectations. More importantly, consumers' luxury purchase intention is influenced by their' willingness to pay a premium price (Li et al., 2012). The high price of luxury product can be an antecedent of consumers purchase intention due to the exclusivity attribute. Nevertheless, it is important to realize that luxury consumers are demanding more value along with their luxury (Wiedmann et al. 2007). As for green products, 'Value for money' is assessed as the primary driver of consumers' choice, even though in some developed countries more consumers are willing to pay a green price premium (Biswas and Roy, 2015). Hence, it is hypothesized that:

H9. Value for money has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H10. Value for money has a significant influence on Chinese consumers purchase intention on sustainable luxury fashion products.

2.5.6 Attitude and Purchase Intention

The TRA posits that attitudes affect behavioural intentions. Attitude means the positive or negative evaluations of individual's behaviour (Wang, 2006). Behaviour intentions (BI) refers to the attitudes or motivations when one intends to take specific action (Ming-Shen et al., 2007).

The theory of reasoned action (TRA) (Ajzen and Fishbein, 1975) and theory of planned behaviour (TPB) (Ajzen, 1991) have been widely adopted to explore attitude and intention. Bagozzi et al. (1989) investigated the relationship between attitude, intention and behaviour, further identified the TRA model and indicated the causal relationship between attitude and intention. Recently, Salehzadeh and Pool (2017) examined consumers' brand attitude affect purchase intention on global luxury brands by different perceived values. Thus,

H11: There is a positive relationship between consumer attitude and purchase intention.

2.5.7 Mediation (Attitude as a Mediator)

It has been proposed that the attitude-behaviour can be moderated by intentions. For example, Bagozzi et al. (1989) compared 11 studies of the mediating role of intentions in the attitude-behaviour relationship. Recent research has also examined the relationship between different value perceptions and intention mediated by attitude in the context of luxury consumption (Phau et al., 2015). On the contrary, it can be noted that consumers do not turn their attitudes into intention and purchase, even if they have positive attitudes towards green products, and this is called attitude-intention gap. As such, it has been pointed out that few consumers having a positive attitude towards sustainable luxury fashion are likely to buy them (ElHaffar et al., 2020). Therefore, the attitude should be examined as a mediator between the influencing factors and purchase intention in order to extend the understanding of the relationship between the intentions to buy such products. Similarly, previous studies have confirmed that consumers' attitude positively affect their purchase

intention of luxury products (Bian and Forsythe, 2012; Zhang and Kim, 2013). Thus, the attitude toward sustainable luxury fashion is expected to be a mediator when contextual factor, various values generate the attitude toward sustainable goods. Based upon the above discussion, the following hypotheses are formed:

H12 : Consumer attitude mediates the relationship between contextual factors and purchase intention.

H13 : Consumer attitude mediates the relationship between hedonic values and purchase intention.

H14 : Consumer attitude mediates the relationship between uniqueness value and purchase intention.

H15 : Consumer attitude mediates the relationship between social value and purchase intention.

H16 : Consumer attitude mediates the relationship between value for money and purchase intention.

2.5.8 Sustainable Lifestlye

Many researchers have suggested the significant relationship between sustainable lifestyle and sustainable consumption attitude and behaviour (Zakaria et al., 2019). Gilg et al. (2005) examined how different types of environmental actions were related to the different clusters of sustainable lifestyle. In some cases, consumers' sustainable lifestyle to some extent is reflected on their anti-consumption behaviours such as "rejecting, reducing and reusing products, brands or consumption activities"(p.443)⁷³. In the context of fashion consumption in this study, four items are adopted to measure consumers' sustainable

73 Black, I. R., & Cherrier, H. "Anti - consumption as part of living a sustainable lifestyle: daily practices, contextual motivations and subjective values". *Journal of Consumer Behaviour*, 9(6),2010. pp.437-453.

lifestyle. As for the rejection, the question of anti-animal furs is used. Another question about the reduction of excessive consumption has been employed to measure consumers' lifestyles. Two questions about the reuse of luxury fashion items have been adopted.

Besides, attitude can be seen as a mediator of relationship between sustainable lifestyle and sustainable consumption (Zakaria et al., 2019).

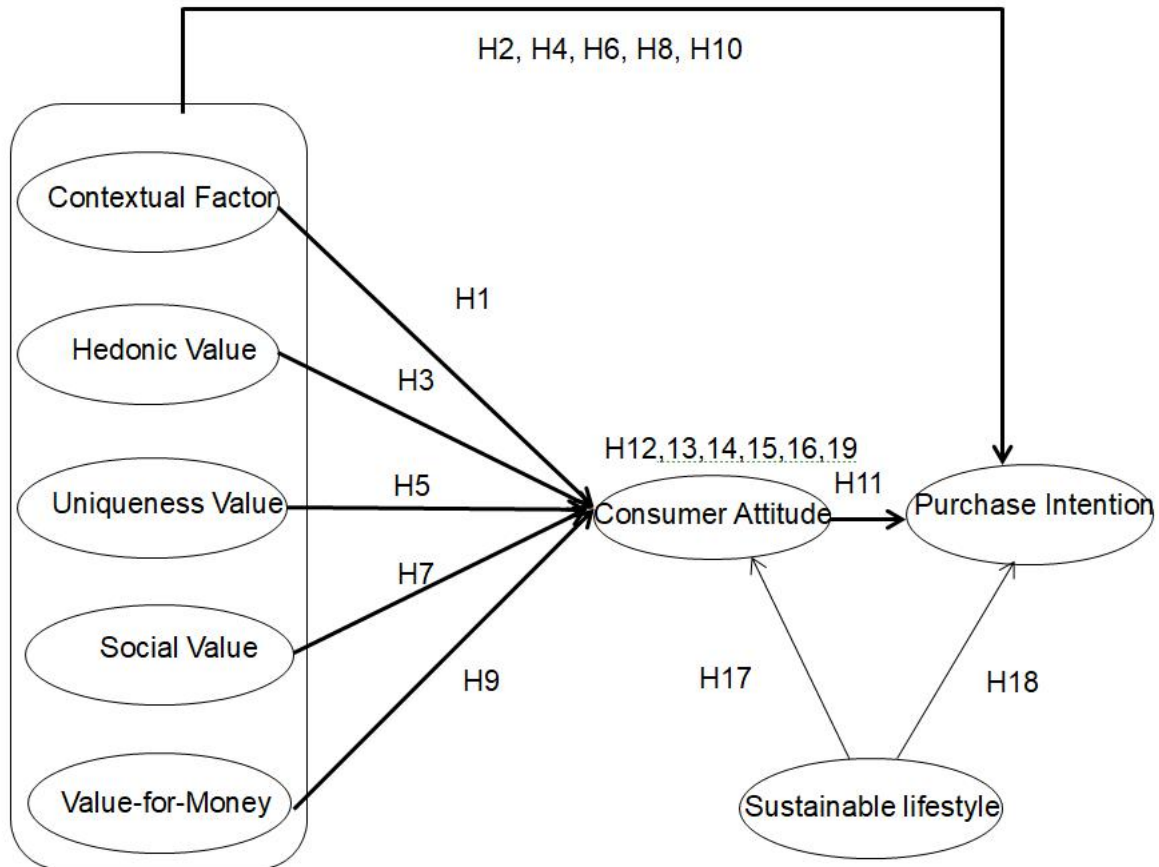
H17 Sustainable lifestyle has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H18 Sustainable lifestyle has a significant influence on Chinese consumers purchase intention on sustainable luxury fashion products.

H19 Consumer attitude mediates the relationship between sustainable lifestyle and purchase intention.

2.5.9 Research Model

Figure 2.15 The Research Framework



Source: Author's Proposal.

Hypotheses:

H1: Contextual Factor has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H2: Contextual Factor has a significant influence on Chinese consumers' purchase intention on sustainable luxury fashion products.

H3: Hedonic value has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H4: Hedonic value has a significant influence on Chinese consumers' purchase intention on sustainable luxury fashion products.

H5: Uniqueness value has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H6: Uniqueness value has a significant influence on Chinese consumers' purchase intention on sustainable luxury fashion products.

H7: Social value has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H8: Social value has a significant influence on Chinese consumers' purchase intention on sustainable luxury fashion products.

H9: Value for money has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H10: Value for money has a significant influence on Chinese consumers' purchase intention on sustainable luxury fashion products.

H11: There is a positive relationship between consumer attitude and purchase intention.

H12: Consumer attitude mediates the relationship between contextual factor and purchase intention.

H13: Consumer attitude mediates the relationship between hedonic value and purchase intention.

H14: Consumer attitude mediates the relationship between uniqueness value and purchase intention.

H15: Consumer attitude mediates the relationship between social value and purchase intention.

H16: Consumer attitude mediates the relationship between value for money and purchase intention.

H17: Sustainable lifestyle has a significant influence on Chinese consumers' attitude on sustainable luxury fashion products.

H18 Sustainable lifestyle has a significant influence on Chinese consumers purchase intention on sustainable luxury fashion products.

H19: Consumer attitude mediates the relationship between sustainable lifestyle and purchase intention.

2.6 Chapter Summary

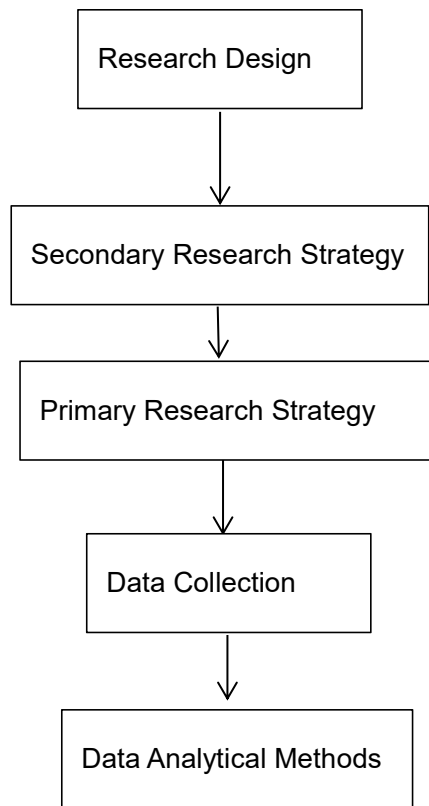
This chapter reviewed literature on concepts of sustainable luxury fashion and consumer behaviour theories, focusing on the factors influencing consumers' attitude and purchase intention in the context of China. The research gaps were also found from the literature review. This chapter provides a foundation for an underlying theoretical framework and proposed hypotheses relating to the research questions.

Chapter 3 Methodology and Research Design

3.1 Introduction

In this chapter, methodology develops as follows:

Figure 3.1 The Flow of Methodology and Research Design



Source: Author's analysis.

Research design methods have been selected based on the attributes of each method. Mixed methods (both quantitative method and qualitative methods) can provide comprehensive explanation of specific research problems which is widely used by marketing researchers.

3.2 Research Design

A research design refers to 'a framework or blueprint for conducting the marketing research project' (Malhotra, 2006, p.74)⁷⁴. The purpose of research design is to deliver

74 Malhotra, Naresh, et al. *Marketing research: An applied orientation*. Pearson Education Australia, 74. 2006. p.74

sufficient and accurate evidence to answer research problems with clear structure. Therefore, it is vital to determine proper research design to verify theory or to test hypothesis.

Research is broadly categorized into three types based on the purpose, namely exploratory, descriptive and casual. Exploratory methods are used initially to know the nature of marketing phenomena and understand problems which the researcher focuses on (Malhotra et al., 2006). Summarised secondary data could define the problems and help to develop proper approaches with relevant resources (Malhotra et al., 2006). Qualitative research has been chosen from exploratory research methods as it can gather information directly from respondents and provide a deep understanding of specific problems typically by “asking respondents ‘what’, ‘how’ and ‘why’ types of question instead of ‘how many’ or ‘how much’, which are answered by quantitative methods”⁷⁵.

Another essential research method is quantitative research. Surveys are commonly used in marketing research, defined as ‘a structured questionnaire given to respondents and designed to elicit specific information.’ ⁷⁶ (Malhotra, 2006, p168). The advantages of questionnaire survey include ease, reliability, simplicity, easy to administer and an efficient, cost-effective way to gain data. Thus, a survey is necessary in this research, despite survey data the difficulty in collecting in terms of a diverse socio-cultural environment.

Experimental research is not feasible for this study. The main reason is that this study is designed to understand consumer purchase, instead of purchase actions. Meanwhile, this method is time-consuming, as it requires that research should be taken under strict controlled conditions to manipulate the causal variable and other variables (Berinsky et al., 2012).

Thus, this study adopted the mixed methods of both qualitative research (in-depth

75 McCusker, Kevin, and Sau Gunaydin. "Research using qualitative, quantitative or mixed methods and choice based on the research." *Perfusion* 30(7). 2015. pp.537-542.

76 Malhotra, Naresh, et al. 2015, p.168.

interview) and quantitative questionnaire survey. These can provide pragmatic advantages when exploring complex research problems.

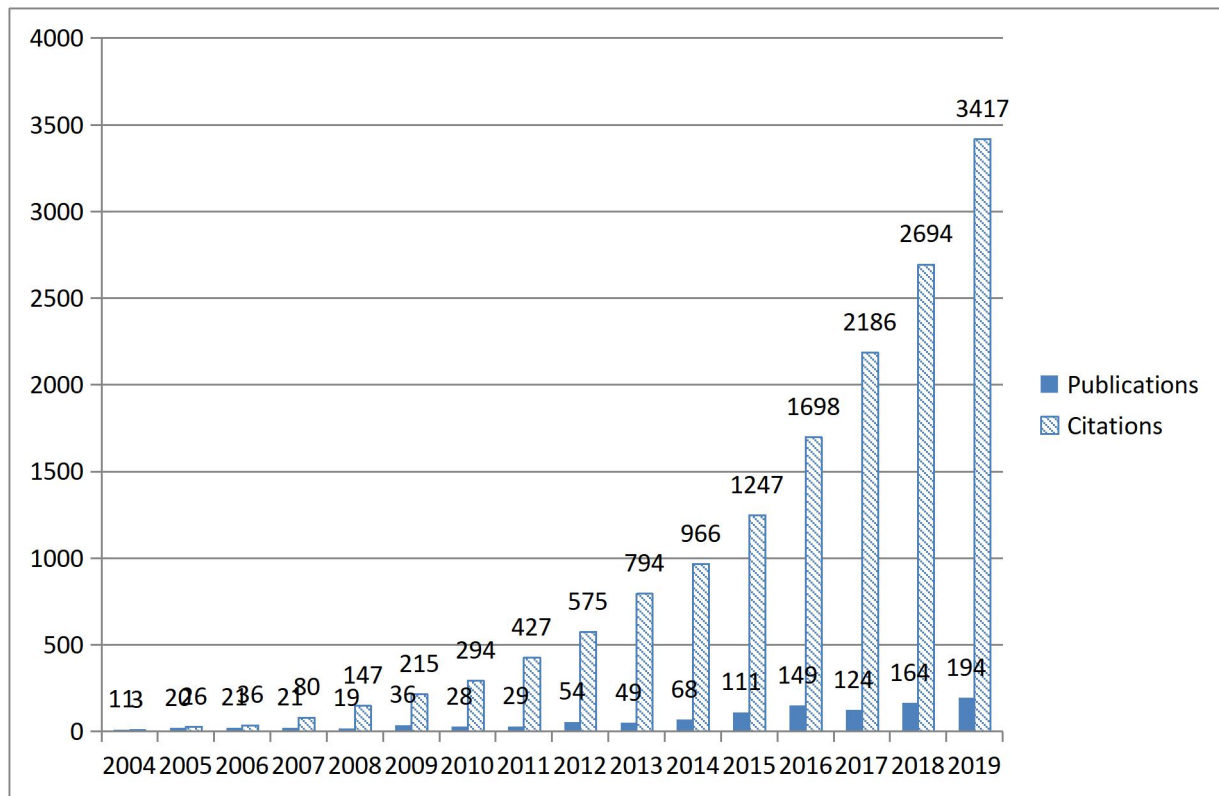
3.3 Secondary Research Strategy

Secondary research should be sufficient in international marketing research in order to define problems and answer research questions (Craig and Douglas, 2005). Secondary data is useful in terms of getting background information of a specific industry (Craig and Douglas, 2005) which is characterised as relative low cost and already available to use.

Literature searches were conducted through Google Scholar, Web of Science, EBSCO Business Source Premier and Science Direct, by using key words “luxury consumption”, “luxury brand”, “consumer behaviour”, “Chinese purchase intention” and “sustainable luxury”. This process originally started from April 2019, and then new published articles were added until 2021.

First, in order to better analyse literature, Web of Science core database was selected for analysing existing articles by searching ‘luxury consumption’. A total of 1100 articles (published from 2004 to 2019) were retained. The reason for starting from 2004 is that luxury consumption research exploded from 2004 (Figure 3.2) and the recent development of luxury research can reflect the trend in this field.

Figure 3.2 Publications and Citations of Top Journals 2004-2019



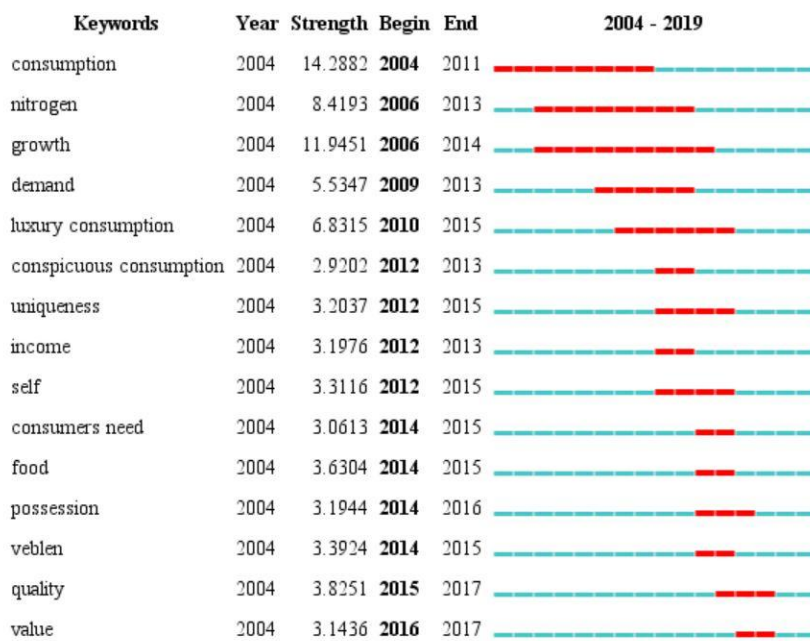
Source: Author's Compilation from Web of Science.

Secondly, this study uses Cite space Version 5.3, which is well accepted in the academic literature review and constantly updated (Chen, 2006). Using Cite Space, key knowledge in the luxury consumption can be analysed. For example, it ranked key words in this area by frequency, identifying key studies that made significant contributions to luxury consumption, knowledge development, and performing a timeline analysis in terms of current status, origin country and development. Hot research topics and frontline research in luxury consumption field were identified based on ranks of frequency of key words within 1100 core articles. The burst of keywords can identify the trend of recent research (Figure 3.2). The keywords burst refer to the major change of a variable's values in a relative short time.

Contributing articles including most cited articles have been identified.

Figure 3.3 Keywords with the strongest Citation Bursts

Top 15 Keywords with the Strongest Citation Bursts



Source: Author' analysis by Citespace.

Thirdly, the sample analysis result show that: Based on the classification of the Web of Science Core Collection, the sample publications are divided between 118 different research fields. The most active research fields dealing with luxury consumption domains are “Business” (521), “Social Science” (118), “Environmental Sciences ecology” (90), “Psychology” (75), “Agriculture” (60), “Arts humanities”(47), and “History” (42), “Science technology”(34), “Sociology”(34) and “ Engineering” (28). The key academic journals in the sample are Journal of Business Research (60 records), Psychology & Marketing (25), Journal of Brand Management (21), Journal of Fashion Marketing and Management (20), Journal of Retailing and Consumer Services (18), International Journal of Contemporary Hospitality Management (13), International Journal of Hospitality Management (12), Journal of Global Fashion Marketing(12), Luxury History Culture Consumption (11), and Asia Pacific Journal of Marketing and Logistics (11). This analysis shows that apart from marketing and

consumer related journals, the luxury consumption field can be extended to sustainable development and other fields such as food, which provides an indication of the importance of the studies on luxury consumption research.

As is seen from the key word's frequency in Table 3.1, the most frequently used keywords are the following: consumption/luxury/consumer/conspicuous consumption/brand (336/ 156/ 114/ 105/ 102 times), China is the only country with 59 frequencies. In terms of product sector, fashion in luxury consumption field topped key words ranking. Thus, luxury fashion industry is a hot topic that deserves more in-depth research.

Table 3.1 Top Key Words with the Frequencies in Luxury Consumption

Number	Key words	Frequency	Number	Key words	Frequency
1	consumption	336	26	demand	36
2	luxury	156	27	satisfaction	34
3	consumer	114	28	Purchase	33
4	conspicuous consumption	105	29	Status consumption	32
5	brand	102	30	uniqueness	32
6	behaviour	97	31	identity	30
7	Perception	92	32	Scale development	28
8	attitude	88	33	Sustainability	27
9	Luxury consumption	87	34	intention	24
10	Luxury brand	85	35	market	24
11	Product	83	36	possession	23
12	Impact	80	37	need	19
13	model	73	38	preference	19

14	materialism	72	39	loyalty	18
15	self	65	40	motivation	17
16	China	59	41	choice	17
17	Culture	56	42	emotion	16
18	price	52	43	perspective	16
19	antecedent	50	44	tourism	16
20	good	45	45	information	15
21	Quality	44	46	scale	15
22	fashion	44	47	nitrogen	15
23	Purchase intention	44	48	income	15
24	experience	40	49	counterfeit	15
25	Consumer behaviour	40	50	validation	15

Source: Author's Compilation by Citespace.

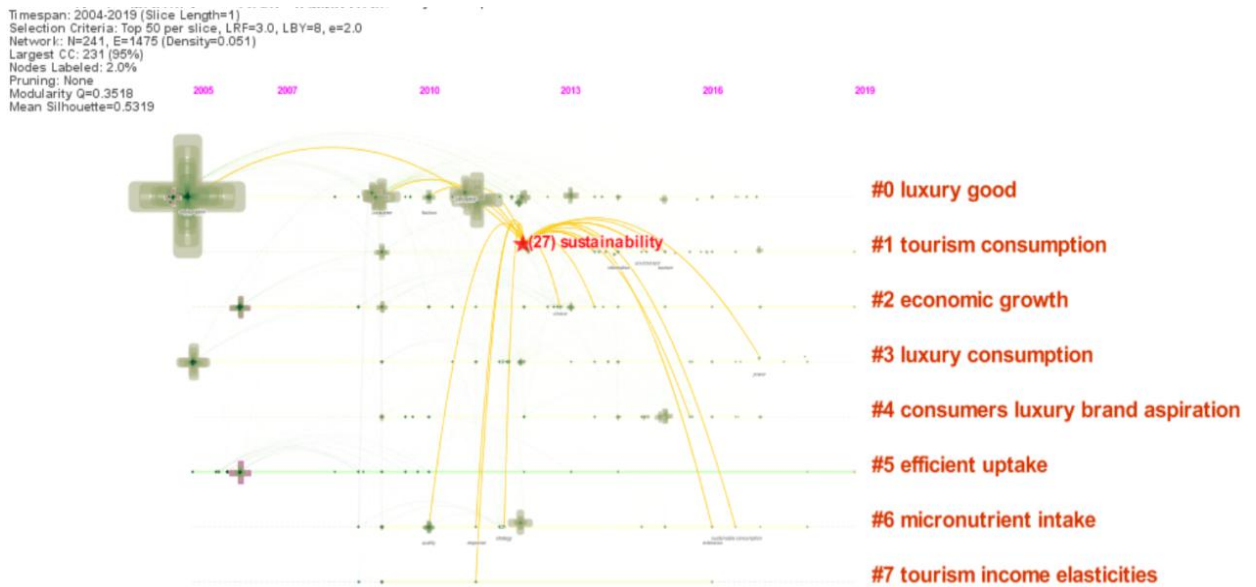
Secondary research started with general luxury industry background and sustainable consumer behaviour. Existing theories related to consumer purchase intention have been reviewed, and the conceptual model and hypotheses of the study has been developed based on the relevant literature. The secondary data is mainly from academic journals, official reports and relevant books. Based on ABS ranking, key academic marketing journals have been accessed through ABI Global, EBSCO, Web of Science, American Marketing Association, JSTOR Arts and Sciences, etc.

Luxury Consumption and Sustainability

From the citespace mapping analysis, the key word 'sustainability' within the luxury

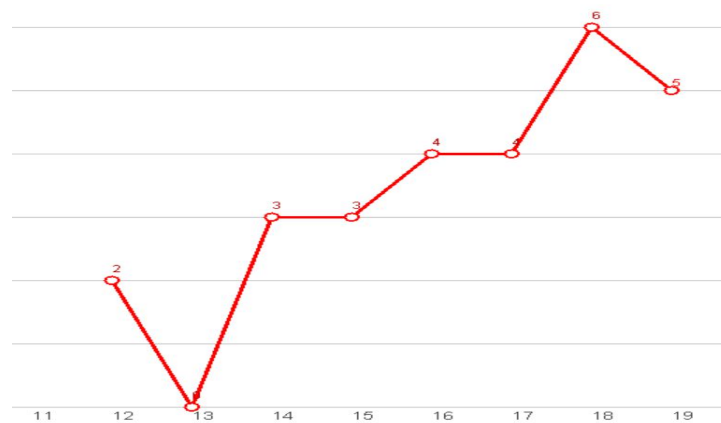
consumption field first appeared in Joy et al.(2012)'s article, even though there was some discussions from organizations and meetings (Figure 3.4); they posed the question : whether luxury fashion, with ostensibly an emphasis on authenticity, and its concomitant respect for artisans and the environment, foster values of both quality and sustainability? In total, 27 articles have taken sustainability into luxury context from different perspectives (Figure 3.5).

Figure 3.4 Timeline of keywords in Titles



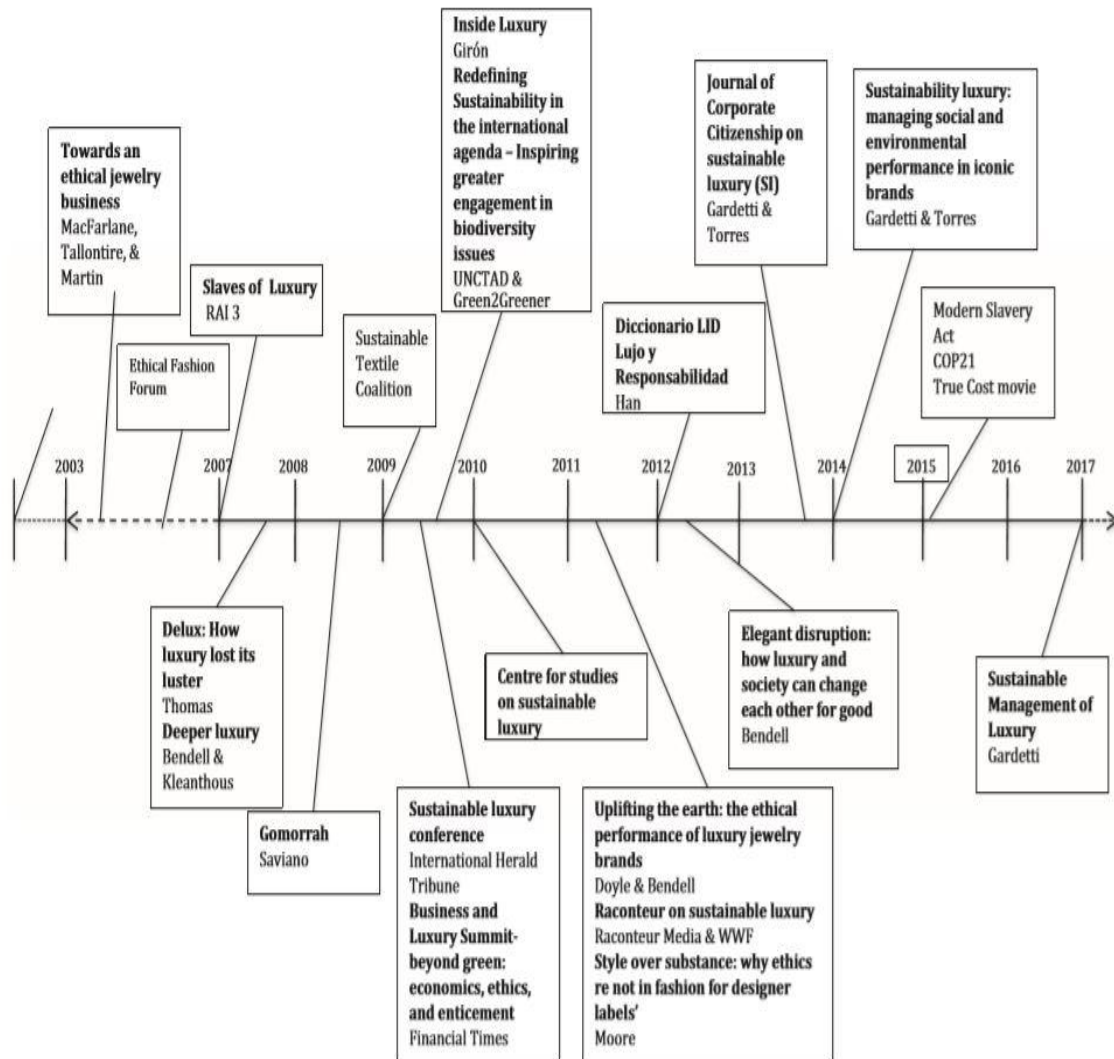
Source: Author's analysis by Citespace.

Figure 3.5 The Number of Publications of Searching 'Sustainability' in Luxury Consumption



Source: Author's analysis by Citespace.

Figure 3.6 Evolution of Sustainable Luxury



Source from: Athwal et al (2019). p.410.

According to the evolution of sustainable luxury (Figure 3.6) by Athwal et al. (2019), the academic area shows little interest or research until 2012, even though there were forums or conferences based on this topic prior to that.

Based on that, after analyzing the citespace results, the following table (Table 3.2) illustrates the academic development:

Table 3.2 Literature on Sustainable Luxury

No.	Time	Title	Corresponding Author	Journal
1	2012	Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands	Joy, Annamma	THE JOURNAL OF DRESS BODY & CULTURE
2	2012	Towards a low carbon future - the development and application of REAP Tourism, a destination footprint and scenario tool	Whittlesea, Emma Rachel	JOURNAL OF SUSTAINABLE TOURISM
3	2014	An emerging eco-habitus: The reconfiguration of high cultural capital practices among ethical consumers	Carfagna, Lindsey B	JOURNAL OF CONSUMER CULTURE
4	2014	The Catch-22 of Responsible Luxury: Effects of Luxury Product Characteristics on Consumers' Perception of Fit with Corporate Social Responsibility	Janssen, Catherine	JOURNAL OF BUSINESS ETHICS
5	2014	Wildlife Harvest and Consumption in Amazonia's Urbanized Wilderness	Parry, Luke	CONSERVATION LETTERS
6	2015	Raw Visionary: Samant Chauhan, Bhagalpur Silk, and the Aesthetic Economy of Indian Fashion	Jay, Phyllida	FASHION PRACTICE-THE JOURNAL OF DESIGN CREATIVE PROCESS & THE FASHION INDUSTRY
7	2015	Cold Comfort? Reconceiving the Practices of Bathing in British Self-Build Eco-Homes	Pickerill, Jenny	ANNALS OF THE ASSOCIATION OF AMERICAN GEOGRAPHERS
8	2015	Marketing sustainability in the luxury lodging industry: a thematic analysis of preferences amongst the Indian transition generation	Rishi, Meghna	JOURNAL OF CONSUMER MARKETING
9	2016	A multi-objective optimization framework for energy and asset management in an industrial Microgrid	Choobineh, Moein	JOURNAL OF CLEANER PRODUCTION

10	2016	The puzzle of the ethical fashion consumer: Implications for the future of the fashion system	Crane, Diana	INTERNATIONAL JOURNAL OF FASHION STUDIES
11	2016	Sustainable Decisions Signal Sustainable Relationships: How Purchasing Decisions Affect Perceptions and Romantic Attraction	DiDonato, Theresa E	JOURNAL OF SOCIAL PSYCHOLOGY
12	2016	Consumption strategies and motivations of Chinese consumers The case of UK sustainable luxury fashion	Henninger, Claudia Elisabeth	JOURNAL OF FASHION MARKETING AND MANAGEMENT
13	2016	DNA barcoding reveals substitution of Sablefish (<i>Anoplopoma fimbria</i>) with Patagonian and Antarctic Toothfish (<i>Dissostichus eleginoides</i> and <i>Dissostichus mawsoni</i>) in online market in China: How mislabeling opens door to IUU fishing	Xiong, Xiong	FOOD CONTROL
14	2017	Motivations for environmental and social consciousness: Reevaluating the sustainability-based view	Brockhaus, Sebastian	JOURNAL OF CLEANER PRODUCTION
15	2017	Refrigeration and the Reduction of the Takeoff Rate of Bushmeat	Buck, Andrew J	SAGE OPEN
16	2017	The role of design similarity in consumers' evaluation of new green products: An investigation of luxury fashion brands	De Angelis, Matteo	JOURNAL OF CLEANER PRODUCTION
17	2018	Purchasing Green Products as a Means of Expressing Consumers' Uniqueness: Empirical Evidence from Peru and Bangladesh	Afshar Jahanshahi, Asghar	SUSTAINABILITY
18	2018	Consumers' perceptions of luxury brands' CSR initiatives: An investigation of the role of status and conspicuous consumption	Amatulli, Cesare	JOURNAL OF CLEANER PRODUCTION
19	2018	Sustainability Transitions at the Frontline. Lock-in and Potential for Change in the Local Planning Arena	Isaksson, Karolina	SUSTAINABILITY

20	2018	Designing a sustainable brand strategy for the fashion industry	Moorhouse, Debbie	CLOTHING CULTURES
21	2018	Portrayals of the tiny house in electronic media: challenging or reproducing the Australian dream home	Penfold, Hilton	SO AUSTRALIAN PLANNER
22	2018	Journal of Brand Management: year-end review 2018	Powell, Shaun M	JOURNAL OF BRAND MANAGEMENT
23	2019	A Neuroscientific Approach to Explore Consumers' Intentions Towards Sustainability within the Luxury Fashion Industry	Balconi, Michela	SUSTAINABILITY
24	2019	Consumers' perceptions on complexity and prospects of ethical luxury: Qualitative insights from Taiwan	Karatzas, Stelios	AUSTRALASIAN MARKETING JOURNAL
25	2019	Land under pressure. The socio-ecological dimensions of land use in Germany's urban growth regions	Lage, Jonas	GAIA-ECOLOGICAL PERSPECTIVES FOR SCIENCE AND SOCIETY
26	2019	Can luxury brands be ethical? Reducing the sophistication liability of luxury brands	Pinto, Diego Costa	JOURNAL OF CLEANER PRODUCTION
27	2019	Ethical attribute and brand concept congruity enhances brand evaluations	Tofighi, Maryam	EUROPEAN JOURNAL OF MARKETING

Source: Author's analysis from citespace result by keyword 'sustainability'.

3.4 Primary Research Strategy

Research Method

Consumers' purchase intentions can be measured by qualitative research such as depth interview or focus group and quantitative research like questionnaire survey; this is known as mixed method (Harrison and Reilly, 2011). The advantage of the mixed method is to provide a holistic view of specific marketing problems (Harrison and Reilly, 2011). Table 3.3 shows the comparison of quantitative and qualitative methods:

Table 3.3 Comparison of Quantitative and Qualitative Methods

	Quantitative	Qualitative
Philosophical foundation	Deductive, reductionist	Inductive, holistic
aim	To test pre-set hypothesis	To explore complex human issues
Study plan	Step-wise, predetermined	Iterative, flexible
Position of research	Aims to be detached and objective	Integral part of research process
Assessing quality of outcomes	Direct tests of validity and reliability using statistics	Indirect quality assurance methods of trustworthiness
Measures of unity of results	Generalizability	Transferability

Source: Marshall, 1996⁷⁷, p524.

To verify theory, qualitative research data can help explore consumers' luxury purchase intention deeply as Calder (1977) suggested that qualitative research could provide a deeper understanding of consumers. Varki et al. (2000) agree that qualitative data can help to explore marketing phenomenon in more depth. The use of qualitative research, for instance depth interview, which is one-to one basis, is a direct and effective way to gather information (Malhotra, 2006).

The aim of qualitative research is to "classify features, count them and construct statistical models in an attempt to explain what is observed.

- (1) Researcher knows clearly in advance what he/she is looking for
- (2) Recommended during latter phases of research projects
- (3) All aspects of the study are carefully designed before data is collected

⁷⁷ Marshall, Martin N. "Sampling for qualitative research." *Family practice* 13(6), 1999. pp. 522-526.

- (4) Researcher uses tools, such as questionnaires or equipment, to collect numerical data
- (5) Data is in the form of numbers and statistics
- (6) Quantitative data is more efficient, able to test hypotheses, but may miss contextual detail
- (7) Researcher tends to remain objectively separated from the subject matter⁷⁸

The interview has been done using a semi-structured questionnaire to explore the purchase intention of sustainable luxury fashion among Chinese consumers. Participants are not limited to students, but are from different gender, income, age, and other demographic characteristics. The interviews lasted 21 minutes to 56 minutes from November 19, 2019 to May 15 and the process has been recorded.

In terms of quantitative research, questionnaire survey has been carried out to collect primary data. Hypothesis can be tested by quantitative research. Section 3.4.2 and 3.4.3 are the detail of quantitative research and questionnaire design.

Focus group is not appropriate for this study because Chinese luxury customers are from different backgrounds, which makes it challenging to find homogeneous characteristics or similar experience from the respondents. In this study, depth interviews have been conducted and the interviewing process has been recorded.

In summary, both qualitative and quantitative research has been conducted in this study. Qualitative research combined the results of open-ended questions and interviews for the sake of systemically understanding customers individually. Quantitative research was designed to test constructs from previous literature about purchase intention.

78 Ibid, p.538.

3.4.1 Justification and Design of Qualitative Research

The majority of extant research has been quantitative with western consumers in the mature societies (Table 3.4). Yet, research on Asian consumers remains limited, which justifies a qualitative enquiry (Henninger et al., 2017). To achieve the purpose of this study, in-depth interviews have been conducted before the questionnaire survey.

Exploratory research was adopted to gain a picture of respondent on a one-to-one basis. Rust and Cooil (1994) suggested that the quality of qualitative data is influenced by the reliability measurement of qualitative data. The quality of interviewing is determined by the consistent and acceptance of communication topics with respondents.

Analysis of the interviews progressed using the grounded theory approach, which was first put forward by (Glaser and Strauss, 1967) and constantly revised by scholars, making the theory gradually mature. This study focuses on the driving factors of sustainable luxury behaviour as the existing theories in this field lack of clarity. Grounded theory has significant advantages for theory generation in the field of marketing and consumer behaviour (Fischer and Otnes, 2006; Goulding, 1998). It is aimed at building a preliminary conceptual framework of the construct of Luxury Purchase Intention. Therefore, it is appropriate to use the grounded theory to study the driving factors of sustainable consumption behaviour in the luxury fashion industry.

Table 3.4 Methodology of Studies on Sustainable Luxury

	Author	Title	Methodology
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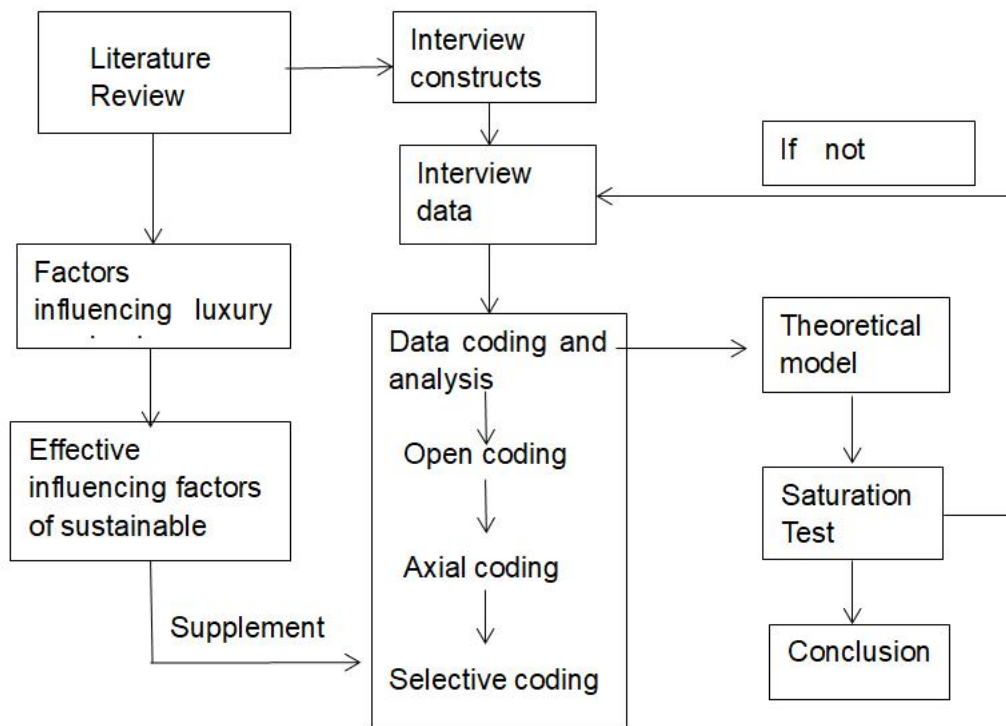
1	Davies et al. (2012).	Do consumers care about ethical-luxury?	Structured interviews(a quota sample of 199 UK consumers on the main shopping streets of two cities in the UK)
2	Cervellon and Shammas (2013)	The value of sustainable luxury in mature markets: A customer-based approach.	Interview 8 volunteers in each country from France, Italy, UK and Canada . A visual elicitation technique, the ZMET technique.
4	Carfagna et al. (2014)	An emerging eco-habitus: The reconfiguration of high cultural capital practices among ethical consumers.	Both quantitative survey as well as four qualitative case studies
5	Han et al. (2016)	Staging luxury experiences for understanding sustainable fashion consumption: A balance theory application	Focus group interviews and direct observation sandpost-behaviour interviews of staged shopping trips—each participant was given money (approx. USD \$180) to spend in the two eco-fashion stores.
6	De Angelis et al. (2017)	The role of design similarity in consumers' evaluation of new green products: An investigation of luxury fashion brands.	Questionnaire Survey
7	Han et al. (2017)	Staging luxury experiences for understanding sustainable fashion consumption: A balance theory application	Focus group interview and direct observations and post-behaviour interviews with South Korean fashion consumers.
8	Chungwha et al. (2017)	Pleasure and guilt: how do they interplay in luxury consumption?	521 usable data from consumer panelists of a commercial online survey company.
9	Pinto et al. (2019)	Can luxury brands be ethical? Reducing the sophistication liability of luxury brands.	Questionnaire survey : one pilot study (121 participants from online panel) and two experimental studies with 175 participants online and 106 participants undergraduate students

Source: Author's Compilation.

In this study, the coding process was performed with NVivo 12, a computer-assisted qualitative analysis software developed by QSR, which is widely used to quantify qualitative data (Liu et al., 2019). The process involves coding strategies (Charmaz and Belgrave, 2007;

Goulding, 1998) including open coding, axial coding and selective coding. Open coding requires grouping similar incidents together, and giving the same conceptual label (Pandit, 1996). All the transcription of interviews were analysed and coded to identify connections from the investigation (open coding). The aim of axial coding is to identify the internal logical relationship between the initial category and the main category (Cao et al., 2019). Selective coding is the process of identifying core categories (Liu et al., 2019). After passing the theoretical saturation test, the theoretical model of driving factors of sustainable luxury consumption behaviour is constructed. Figure 3.7 shows the process of this study.

Figure 3. 7 Framework of GTA Research Process



Source: Author's Analysis.

Qualitative Research Sample

To ensure the validity and representativeness of the data, theoretical sampling has been performed. Theoretical sampling is fundamental and “necessitates building interpretative

theories from the emerging data and selecting a new sample to examine and elaborate on this theory"⁷⁹(Marshall, 1996. P523). Since participants should be able to discuss their luxury purchasing experiences and their perceptions of sustainable development in luxury fashion in detail, only consumers who have purchased luxury fashion products within a year were invited to participate in this study. A total of 34 interviews were completed in accordance with the requirements of theoretical sampling. Additionally, as the majority middle class people in China are relative young and they comprise an increasingly percentage of luxury products, studies show the post-80s and post-90s groups accounted for 43% and 28% of the luxury consumers, and their purchases made up 56% and 23% of the total luxury purchase⁸⁰ respectively. Thus, all 34 interviews were sorted by the following conditions: Consumers aged between 18 to 40 years old in 2020.

- (1) part of the Chinese middle class, those have a household earning above 200,000 to 420,000 RMB.(NBS, 2019 ⁸¹)
- (2) Consumers have purchased luxury products or brands in developed countries, such as the UK, USA, and Japan, assuming that they have international view of luxury brands during travelling or studying in developed countries.

A total of 34 effective interviews were obtained after the interviews' assortment, while 6 interviews were excluded due to unsatisfactory quality.

Table 3.5 shows the characteristics of the 34 interviewees in the sample. Apart from the demographic characteristics, such as gender, age, education level, this study, following Qu et al. (2015)'s methods, added lifestyle to categorize Chinese consumers (sustainable consumers, potential sustainable consumers and unsustainable consumers) based on their values and attitudes towards sustainable consumption.

79 Marshall, Martin N. "Sampling for qualitative research." *Family practice* 13(6), 1996. pp.522-526.

80 Luxury Report. Accessed May 3, 2020. <https://www.useit.com.cn/thread-23118-1-1.html>, 2020.5.3.

81 China New Middle Class Report, Accessed May 3, 2020. https://www.sohu.com/a/279773139_100011329.

Table 3.5 Interviewees' Basic Information

	Characteristics	Number	Percentage
Gender	Female	17	50%
	Male	17	50%
Age	18-20	3	8.8%
	21-25	17	50%
	26-30	5	14.7%
	31-35	7	20.6%
	36-40	2	5.9%
Education	Undergraduate	15	44.1%
	Postgraduate or above	19	55.9%
Lifestyle	Sustainable	7	17.6%
	Potential sustainable	22	67.7%
	Unsustainable	5	14.7%

Source: Author's Compilation.

Sustainable consumers are those who care highly about the environment, and protecting the environment is part of their lifestyle. Therefore, they would like to conduct sustainable consumption, hoping to reach a balance between human beings and nature. On the other hand, they are against unsustainable behaviour, and would like to actively take part in sustainable consumption. Most respondents are potential sustainable consumers, and they see sustainable consumption as a positive behaviour to protect the environment. Furthermore, they believe people should conduct sustainable consumption but they are very sensitive to the price of products and would only like to insist green purchasing when the government provided rewards (Qu et al., 2015). In addition, the green marketing would to some extent impact their consumption behaviour if some external incentives are offered. Even though the majority of respondents are well educated and know the importance of sustainable development, there are still a few unsustainable consumers (I5, I14, I21). They are very sensitive to product price, which indicates that if green product prices are more expensive than that of the corresponding products, they would not buy them. Meanwhile,

they are not concerned about the product quality or the product packaging. They seldom use reusable substances, and they do not care about the impact of result of their consumption behaviour. They also would not want to understand the government policies on sustainable consumption.

3.4.2 Justification and Design of Quantitative Research

Quantitative Sampling design

Sampling is one of the major techniques in marketing research that enables the collection of valid survey data. At the same time, it can save time, money and labour in the procedure of investigation. According to Aaker et al. (2013), the process of sampling can be summarised as: (1) Define the target population; (2) Determine the sampling frame; (3) Choose proper method of selecting the sample either probability sampling or non-probability sampling; (4) Determine the sample size.

(1). Define the Target Population:

Secondary research results show that there is no accurate Chinese population report on purchasing luxury items although data reflects that millennial contributes the most to the increase of luxury goods consumption.⁸² Different from those of western countries, Chinese luxury consumers are relative young, mostly under 40 years old. The so-called 'post-90s generation' leads luxury consumption (Gazzola et al., 2017).

Considering the accessibility, this study focuses on accessible luxury (that is targeted at the mass market) and intermediate luxury products —a geared to towards a narrower target audience with higher disposable income (compared to accessible luxury) (Henninger et al.,

82 Mckinsey, 2017 Accessed May 3, 2020.
[mckinsey.com/~/media/McKinsey/Industries/Retail/Our%20Insights/2017%20Japanese%20luxury%20report/2017-Japanese-luxury-report.ashx](https://www.mckinsey.com/~/media/McKinsey/Industries/Retail/Our%20Insights/2017%20Japanese%20luxury%20report/2017-Japanese-luxury-report.ashx)

2017). In the context of China, these include luxury products that the middle class has the ability to afford, such as Chanel's foundation with 600 RMB⁸³, Coach TABBY No.26 handbag (4500RMB)⁸⁴.

In order to eliminate the culture's influence on their purchase intention, this study has defined the target respondents as prospective Chinese consumers who have had luxury fashion purchasing experience.

Elements of Sample: Prospective luxury fashion consumers in China

Sample Unit: Prospective consumers who have purchased luxury fashion in China

Extent: Prospective luxury fashion consumers who have sustainable lifestyle in China.

Time Period: December 13, 2020 — May 10, 2021 (including content validity test and pretesting);

(2) Determine the sampling frame:

A sample frame refers to 'a way of establishing the boundaries of the population which will contain all the elements and units necessary to fulfil the objectives of the research'⁸⁵ (Webb 1999, p51). The probability sample in this research is not appropriate as the population of luxury consumers is not available from the census report. The sampling design is mainly based on the time and cost limitation.

(3) Sampling method:

There are two sampling methods: the probability sampling technique and the non-probability sampling technique. The most common method is random or probability samples, which is more preferable as the data generated from the entire population to

83 Chanel, 2020. Accessed July 3, 2020. https://www.chanel.cn/zh_CN/fragrance-beauty/makeup/c/ultra-le-teint.html

84 Coach, 2020. Accessed August 10, 2020. https://china.coach.com/coach-colorblock-tabby-shoulder-bag-26/76105_B4QUJ.html?c=10701

85 Webb, Eugene J., et al. *Unobtrusive measures*. Vol. 2. Sage Publications, 1999. p.51.

control biased (Etikan and Bala, 2017). However, in reality, probability sampling is often not a viable choice for a variety of reasons, including the lack of reliable population data and the absence of suitable sampling frames (Reynolds et al., 2003). Non-probability sampling method is selected because of the lack of reliable population data (Reynolds *et al.*, 2003) of luxury consumers from different cities and operational ease is needed (Aaker et al., 2013). Although nonprobability sampling cannot be generalised to the target population, it is useful when randomisation is impossible (Etikan *et al.*, 2016).

Convenience and snowball sampling were conducted in the pre-testing stage. Snowball in this study means the participants who are luxury consumers tell their friends and acquaintances to also answer the questionnaire as well. Considering the uncertainty and bias from nonprobability sampling, the following two ways can eliminate the uncontrolled bias: One is use more data to improve the approach and the other requires a probability sample. This study tried to collect more data to improve the issue.

(4) Determine the Sampling Size

The sample size should be determined by three factors:

- (i) the heterogeneity (i.e. variance) of the population;
- (ii) magnitude of acceptable error (i.e. + or - of some amount say 3 percent or 5 percent) or the level of precision, and
- (iii) Confidence intervals (i.e., 90 percent, 95 percent, 99 percent). The determination of sample size heavily depends on variability (i.e. variance) or heterogeneity within the population. (Ab Hamid et al., 2017)⁸⁶ p23

Cochran's formula (Cochran, 1977) is considered especially appropriate in situations with large populations. A sample of any given size provides more information about a

86 Ab Hamid M R, Sami W, Sidek M H M. Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion, *Journal of Physics: Conference Series*. IOP Publishing, 890(1), 2017. p.12163.

smaller population than a larger one, so there's a 'correction' through which the number given by Cochran's formula can be reduced if the whole population is relatively small.

The Cochran formula is: $n_0 = \frac{z^2 pq}{e^2}$

Where:

- e is the acceptable margin of error for proportion being estimated =0.5(error research is willing to accept),
- p is the (estimated) proportion of the population which has the attribute in question,
- q is 1 – p.
- pq=estimate of variance=0.25(maximum possible proportion (0.5) * (1-0.5)- maximum possible proportion (0.5) produces maximum possible sample size)
- The z-value = value of selected alpha level of .025 in each tail = 1.96.

If the confidence level is 95% confidence, p = 0.5 and at least 5 percent—plus or minus—precision. A 95 % confidence level gives us z values of 1.96, per the normal tables, so we get

$$n_0 = \frac{z^2 pq}{e^2} = \frac{1.96^2 (.5)(.5)}{.05^2} = 384$$

However, the level of confidence can be increased to 99 percent, so this requires a larger sample (Ahmad and Halim, 2017).The z value corresponding to 99 percent level of confidence is 2.58.

$$n_0 = \frac{z^2 pq}{e^2} = \frac{2.58^2 (.5)(.5)}{.05^2} = 665.64$$

So a sample of 666 useable respondents in our target population should be enough to give the confidence levels we need. However, the larger the sample used, the more credible the obtained results with the present procedure (Raykov and Grayson, 2003).

Due to time and resources constraints, in total 1037 questionnaires were collected and the target respondents are prospective Chinese consumers in first-tier city, second-tier city, third-tier city, etc. To develop more valid data, both online and offline survey have carried out. Furthermore, the non-response problems should be noticed. The reasons are varied, for instance, respondents refuse to answer; interruption from other activities when doing survey online; technical problems of internet etc (Hansen and Hurwitz, 1946). In addition, the qualitative interview sample size is based on a quantitative research result.

After taking into consideration of the non-response problems, excluding bias response and other invalid factors like total time spending and all the same answers, the total valid number of respondents is 935.

3.4.3 Questionnaire Design

Questionnaire design is a key step for research design (Malhotra et al., 2006) and it has been distributed in various formats such as Email survey, face-to-face survey, social media survey etc. The literature review and interview data led to the development of five themes that were identified as the instrument's subscales: hedonic value, uniqueness value, social value, value for money, contextual factor and sustainable lifestyle. A pool of items was initially generated (Table 3.6), through a broad literature review, to cover the five themes. Three to twelve statements on a five-point Likert rating scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4=agree, 5 = strongly agree) were formulated to cover each theme.

A structured questionnaire was designed focusing on proposed value perceptions and their impact on sustainable luxury purchase intentions. Respondents were informed about the concept of luxury brands and sustainable luxury before doing the survey. The questionnaire was divided into three sections. The first section included the frequency and

past purchase behaviour. Respondents were asked whether they had bought luxury products and how did they buy. The second section of the questionnaire includes the main measurements in this study. Items relating to consumers' four values (hedonic value, uniqueness value, social value and value for money) and contextual factors were designed to assess consumers' attitude and intention towards sustainable luxury fashion. The last section included questions about demographic details including age, gender, household income, personal spending and education level to distinguish consumers' behaviour attitude and intentions toward sustainable luxury fashion. The questionnaire was initially written in English, and then translated into Chinese because the target population in this research is Chinese.

The constructs were derived from established measurement scales: Hedonic value was derived from (Arnold and Reynolds, 2003; Chattalas and Shukla, 2015; Li et al., 2012). Scale items of uniqueness were derived from (Amaldoss and Jain, 2005; Bian and Forsythe, 2012; Tepper Tian et al., 2001; Thompson and Haytko, 1997) Scale items relating to social values were adopted from (Jin and Hye Kang, 2011; Lee, 1991; Sweeney and Soutar, 2001). The value for money items were derived from (Bolton et al., 2010; Li et al., 2012). All measures employed a five-point Likert-type response format, with '1=strongly disagree' '3=neither agree nor disagree' and '5=strongly agree' as anchors.

3.4.3.1 Item Development

This study examines the factors influencing Chinese consumers' sustainable luxury attitude and purchase intention. The measures of personal value were classified into two groups: hedonic value and uniqueness. The measures of *hedonic value* were derived from (Arnold and Reynolds, 2003; Chattalas and Shukla, 2015; Li et al., 2012) and screened based on interview result. The measures of uniqueness were modified based on Amaldoss and Jain, 2005; Thompson and Haytko, 1997; Tian 2001; Bian and Forsythe, 2011 and the

interview result. Many studies have adopted the scales of measuring social value (Hudders, 2012; Jin and Hye Kang, 2011; Lee, 1991; Sweeney and Soutar, 2001), which indicates the reliability and validity of the social value constructs in the questionnaire.

This study developed the scales for measuring *value for money* about purchasing sustainable luxury fashion. Previous studies have examined the value for money on purchasing luxury goods or green products (Bolton et al., 2010; Li et al., 2012). According to the interview result, the scales of value for money have been developed and modified.

The development of scales for measuring *attitude* in this research followed by measures proposed by (Afshar Jahanshahi and Jia, 2018; Chattalas and Shukla, 2015; Zhang and Kim, 2013) The scales of intention were adopted from (Wei and Jung, 2017) while the items of measuring intention to pay premium price stem from Stern 2000 and Biswas and Roy 2015.

In addition, this study involves sustainable attitude toward sustainable luxury fashion products, thus scales of measuring sustainable lifestyle are developed from Yarimoglu and Binboga, (2019), Straughan, and Roberts (1999), Farzana Quoquab, Jihad Mohammad, Nurain Nisa Sukari (2019), and the interview results. The scales of the contextual factor originally were adopted from Biswas and Roy (2015), but tailored to test the luxury fashion in this research context.

Table 3.6 Item Development and Sources from Literature Review

Construct	Items :	Source:
Contextual Factor	CF1: There are few green luxury brands in markets and I can't choose eco-friendly products for alternative. CF2: If there is enough publicity, I would purchase sustainable luxury. CF3: Among the people around me, there are few people to buy environment-friendly luxury products or understand my choice to environment-friendly products. CF4: If the neighbors or families have purchased the environment-friendly luxury products, I will also want to purchase the	Biswas, A. and Roy, M., 2015.

	<p>same products.</p> <p>CF5: If there is government subsidy, I am willing to purchase environment-friendly luxury products, despite of their higher prices.</p> <p>CF6: If there exists certain government, legal and regulatory requirements, I will change my consumption style towards environment-friendly products to confirm them.</p>	
Hedonic Value	HV1: I feel personally happy when purchasing for sustainable luxury fashion items.	Arnold and Reynolds, 2003; Li, Li, and Kambele, 2012; Chattalas, M. and Shukla, P., 2015. And Interview result
	HV2: Buying sustainable luxury fashion is a way to relax or relieve stress.	
	HV3: When I am in bad mood, I may buy luxury accessories to enhance my mood.	
Uniqueness Value	UV1: I would like to buy creative sustainable luxury products or use them creatively as a way of telling people I am different.	Modified based on Amaldoss & Jain, 2005; Thompson and Haytko, 1997; Tian 2001; Bian & Forsythe, 2011 and interview result
	UV2: When a luxury product I own becomes popular among the general population, I begin to use it less.	
	UV3: I often seek out information about new products and brands (ie. Sustainable ones) without relying on the opinion of others.	
Social Value	SV1: Purchasing sustainable luxury products can give social approval (i.e. sustainable communities).	Adapted from Lee 1990. Sweeney, 2001., Jin and Kang 2011 and Hudders, 2012
	SV2: I am more influenced by others' recommendations (like parents, friends or social networks) when choosing luxury items.	
	SV3: Purchasing sustainable luxury products would make a good impression on other people.	
	SV4: Purchasing sustainable luxury products would improve the way I am perceived (eg: others would believe I am a sustainable person).	
Value for money	VM1: I purchase luxury fashion brands only when they are reasonably priced.	Li, G., Li, G. and Kambele, Z., 2012; Bolton, Keh, & Alba.2010
	VM2: Sustainable luxury products I buy must be value for money.	

	VM3: Sustainable luxury products I buy should have economic benefit (ie. Cost per wear is low) .	Based on interview
Attitude	A1: Purchasing sustainable luxury I feel good. A2: Purchasing sustainable luxury I feel beneficial A3: I have positive attitude toward sustainable luxury rather than negative.	Afshar Jahanshahi, A. et,al 2018; Chattalas, M., & Shukla, P. 2015; Zhang, B. and Kim, J.H., 2013.
Intention	I1: Given a choice between two substitute products, I intend to choose the one having less environmentally hazardous substances in future. I2: I will always recommend that my friends buy sustainable luxury products. I3: Given that environment-friendly products are readily available, I predict that I would use them in future. I4: Of the 10 times you buy luxury clothes at, how many times would you select the sustainable fashion brand?	Adopted from: Wei, Xiaoyong, and Sojin Jung. 2017
Intention to buy premium price	IP1: I am willing to pay more money to buy environment-friendly luxury products. IP2: How much higher are you willing to pay at most for sustainable luxury products? 10-50%	Stern, P.C. 2000, Biswas, A. and Roy, M., 2015.
sustainable lifestyle	SL1 : I respect the earth. I won't wear clothes or use bags made from wild animal furs. SL2 : I would donate or recycle old clothes, shoes, etc that in good condition. SL3 : I repair my belongings (e.g. shoe, handbags) to increase its life time. SL4: It is my responsibility to control desire of excessive purchase for the sake of future generation retained. SL5 : It is important to me that the products I use don't harm the environment.	Interview result and Yarimoglu, and Binboga, 2019. Straughan and Roberts, 1999. Farzana Quoquab, Jihad Mohammad, Nurain Nisa Sukari, 2019

Source: Author;s Compilation from literature and interview.

Testing should be conducted to eliminate the occurrence of bias and check inappropriate

questions. In order to evaluate the clarity of the instrument before doing the pre-test, 11 participants from the relevant population were asked to answer questions from the initial questionnaires. The main principals are listed below:

- (1) Are the two concepts in the first part of the questionnaire understandable to you ?
- (2) Are any items ambiguous or difficult to answer?
- (3) Are any questions subjective or introductive?
- (4) Are any questions repetitive?
- (5) Are there any biased answers to choose from?

Through this process, the vague or subjective questions were modified or deleted. The second draft of the questionnaire was constructed including items' for measuring all the variables: hedonic value, uniqueness value, social value, contextual factor, lifestyle, attitude and intention.

The resulting initial 45-item scale was reviewed by a panel of fashion experts with extensive luxury purchasing experience to test the face and content validity. Content validity refers to the extent to which a research instrument accurately measures all aspects of a construct⁸⁷(Heale and Twycross 2015, p.66).The questionnaire was then submitted to teachers and students in Shanghai Donghua University, who were asked to assess each item for representativeness, specificity and clarity. After eliminating the replicated questions or vague items, four items of personal values, four items of functional value, 1 item of attitude and 1 item of intention to purchase premium price were deleted.

Then a pilot study and a main study can be conducted to examine the model. Pilot testing was used to 'test the accuracy and reliability of sampling frames before extending their use to the main sample survey'⁸⁸ (Chisnall, 2001, p145). It is recommended that testing

87 Heale R, Twycross A. Validity and reliability in quantitative studies. Evidence-based nursing, 18(3), 2015. pp. 66-67.

88 Chisnall, Peter M. *Marketing research*. London: McGraw-Hill, 1992.

should modify phrasing and provide a better translated version presentation of the survey (Biocca et al., 2001). Details are in section 3.4.3.2.

3.4.3.2. Questionnaire Construction

The questionnaire contains three sections:

Section 1: consumers' lifestyle and previous purchase experience;

Section 2: variables pertaining to attitudinal beliefs and intentions about purchasing sustainable luxury fashion;

Section 3: demographic characteristics.

In the questionnaire, two definitions of luxury fashion and sustainable luxury fashion preceded the questions. The definitions are as follows:

Luxury fashion goods are defined as apparel, accessories, handbags, shoes, watches, jewellery, and perfume for which the mere use or display of a particular branded product brings prestige to owners, apart from any functional utility (Zhang and Kim, 2013).

Sustainable luxury fashion: luxury fashion that is designed for long lifetime use; it is produced in an ethical production system; it causes little or no environmental impact and it makes use of eco-labelled or recycled materials" (modified from Niinimäki, K., 2010.p152⁸⁹)

The first section includes the frequency and past purchase behaviour like total spending and channels of buying luxury fashion. Respondents were asked whether they had bought luxury fashion in the past three years, how much they spent in total for a year and by which channels did they choose to purchase. In addition to that, a group of 5-Likert type questions were provided to test their lifestyle. This purpose is to classify consumers into three groups: sustainable consumers, potential sustainable consumers and unsustainable consumers.

89 Niinimäki, Kirsi. "Eco - clothing, consumer identity and ideology." *Sustainable development* 18(3), 2010. pp.150-162.

The second section of questionnaire is the main measurements in this study. Items relating to consumers' different values (hedonic value, uniqueness value, social value and value for money) and contextual factors were designed to assess consumers' attitude and intention towards sustainable luxury fashion.

The last section consists of nine questions pertaining to personal information including age, gender, household income, personal spending, education level, occupation, marital status, habitual residence and hometown. The demographic characteristic information was collected to distinguish consumers' behaviour attitude and intentions toward sustainable luxury fashion. The questionnaire was initially written in English, and then translated into Chinese because the target population in this research is Chinese. To avoid discrepancies between the English and Chinese versions, the Chinese version is then back- translated into English and checked by an individual who is Chinese, doing interpreter in the UK and is fluent in both Chinese and English.

Operationalisation of the variables:

Prior literature provides references for the constructs of variables and each item has sub-variables that can be measured by several questions. Appendix 1 is a summarised table.

Question formats

5-point Likert scale is designed to examine the degree of respondents' perceptions of each factor's influence on LPI where '1' refers to 'strongly disagree' '3' means 'neither disagree nor agree' and '5' is 'strongly agree'. Customers purchase intention data have been collected through both 5-point Likert scale question and multiple-choice questions which designed to examine the degree of purchase intention among respondents and product choice.

Table 3.7 Items of Measuring Constructs of Attitude and Intention
about Purchasing Sustainable Luxury Fashion

Construct	Items :
Sustainable lifestyle	<p>I respect the earth. I won't wear clothes or use bags made from wild animal furs.</p> <p>I would donate or recycle old clothes, shoes, etc that in good condition.</p> <p>I repair my belongings (e.g. shoe, handbags) to increase its life time.</p> <p>It is my responsibility to control desire of excessive purchase for the sake of future generation Retained.</p> <p>It is important to me that the products I use don't harm the environment.</p>
Contextual factor	<p>There are few green luxury brands in markets and I can't choose eco-friendly products for alternative.</p> <p>If there is enough publicity, i would purchase sustainable luxury.</p> <p>Among the people around me, there are few people to buy environment-friendly luxury products or understand my choice to environment-friendly products.</p> <p>If the neighbors or families have purchased the environment-friendly luxury products, I will also want to purchase the same products.</p> <p>If there is government subsidy, I am willing to purchase environment-friendly luxury products, despite of their higher prices.</p> <p>If there exists certain government, legal and regulatory requirements, I will change my consumption style towards environment-friendly products to confirm them.</p>
Hedonic Value	<p>I feel personally happy when purchasing for sustainable luxury fashion items.</p> <p>Buying sustainable luxury fashion is a way to relax or relieve stress.</p> <p>When I am in bad mood, I may buy luxury accessories to enhance my</p> <p>The sustainable luxury fashion that I like best is the ones that express my individuality.</p>
Uniqueness Value	<p>I would like to buy creative sustainable luxury products or use them creatively as a way of telling people I am different.</p> <p>When a luxury product I own becomes popular among the general population, I begin to use it less.</p> <p>I often seek out information about new products and brands (ie. Sustainable ones) without relying on the opinion of others.</p>
Social Value	<p>Purchasing sustainable luxury products can give social approval (i.e. sustainable communities).</p> <p>I am more influenced by others' recommendations (like parents, friends or social networks) when choosing luxury items.</p> <p>Purchasing sustainable luxury products would make a good impression on other people.</p> <p>Purchasing sustainable luxury products would improve the way I am perceived (eg: others would believe I am a sustainable person).</p>
Value for money	<p>Sustainable luxury products I buy must be reasonably priced.</p> <p>Sustainable luxury products I buy must be value for money.</p> <p>Sustainable luxury products I buy should have economic benefit (ie. Cost per wear is low) .</p>
Attitude	<p>Purchasing sustainable luxury I feel good.</p> <p>Purchasing sustainable luxury I feel beneficial</p> <p>I have positive attitude toward sustainable luxury rather than negative.</p>

Intention	Given a choice between two substitute products, I intend to choose the one having less environmentally hazardous substances in future.
	I will always recommend that my friends buy sustainable luxury products.
	Given that environment-friendly products are readily available, I predict that I would use them in future.
	Of the 10 times you buy luxury clothes at, how many times would you select the sustainable fashion brand?
Intention to buy premium price	I am willing to pay more money to buy environment-friendly luxury products.
	How much higher are you willing to pay at most for sustainable luxury products? 10-50%

Source: Author's analysis.

3.5 Data Collection

3.5.1 Qualitative Research

The first stage in this study was based on semi-structured interviews , which allows for flexibility and ability to ask questions outside of the interview guide (Bryman and Bell, 2011). This was carried out by asking questions to understand the meaning of luxury in consumers' minds (e.g. 'what do you think is luxury product'), to questions about luxury motivation (e.g. 'what luxury products have you bought last year' and 'why did you buy that product') to questions about lifestyle ('do you think to what extent you care about the environment?') to questions about sustainable luxury ('do you think luxury and sustainability are contradictory and why?' and 'do you think the luxury industry should be role models in sustainable development'). Through this process, interview respondents can give direct and deep answers to help better understand their motivation and sense of sustainable luxury. The interviews were conducted both by face-to-face and by telephone. The interview time ranged from 21 minutes to 56 minutes. This research was conducted from November 19, 2019 to May 15, 2020. Part of the interviewees responded in English although they were all Chinese while most participants chose to speak Mandarin when they were unable to express their opinion sufficiently. All the responses were translated into English. Transcriptions were

analyzed line-by-line qualitatively with NVivo Pro 12 software (NVivo Pro 12, QSR International Pty Ltd, Melbourne, Australia). To ensure the validity and representativeness of the data, theoretical sampling has been performed. Since participants should be able to discuss the luxury purchasing experiences in detail and their perceptions of sustainable development in luxury fashion, only consumers who have purchased luxury fashion products within a year are invited in this study.

A total of 34 effective interviews were obtained after the interviews' assortment, while 6 interviews were excluded due to unsatisfactory quality. Details of data collection and data analysis are shown in Section 3.6.1 and Section 4.2.

3.5.2 Quantitative Research

Malhotra et al. (2006) suggested that software can be used to enhance the efficiency of developing questionnaires and a platform providing functions equivalent to Qualtrics has been adopted in this study. This web-based questionnaire has been designed using both English and Simple Chinese languages. Social networks, such as QQ, wechat, weibo, etc., are the first tools to distribute the online questionnaire link, and then a professional group was recruited to collect required data, allowing for the generation of valid responses.

The initial questionnaire was assessed subjectively by professionals and five doctoral students to identify vague, difficult to understand, or inappropriate questions. The scales were evaluated by a panel of fashion-industry experts for face and content validity (Heale and Twycross, 2015). The questionnaire was submitted to teachers and students at a textile college in Shanghai. In order to make valid inferences from a sample, a professional sampling group (teachers and students in textile department of Donghua University in Shanghai) was recruited to assess its representativeness, clarity, and specificity. Respondents must have made a luxury fashion purchasing (including sustainable purchases and unsustainable consumption) within the last three years and intend to buy more in the

next two years. Considering the ease of operation (Aaker *et al.*, 2013), a pre-test ($n=240$) using convenience and snowball sampling was conducted in first-tier cities of China (Beijing, Shanghai, Guangzhou and Shenzhen).

The main study of questionnaire survey was carried out from 27 March, 2021 to 10 May, 2021. In total, 1037 questionnaires were completed (among which 700 respondents were paid some motivational money by a professional survey group). However, after purifying the invalid answers with methods of total time spent and standard deviation mentioned in the pretesting, 935 questionnaires were returned for analysis.

The collected data were entered into SPSS 26.0 and AMOS 24.0. Valid data preparation was obtained by data coding, transcribing and cleaning process. Taking the research objective into consideration, appropriate techniques for data analysis were selected.

3.6 Data Analytical Methods

3.6.1 Qualitative Research

The survey instrument had a mixture of 5-Likert scale questions and open-ended questions to allow further exploration of the topics discussed. In order to reduce the desirability bias, this survey was separated into three sections, where we only introduce sustainable luxury fashion topic in section 3. Section 1 collected data of demographic characteristics of respondents, including gender, age, occupation, education level, household income, average monthly expenses. Section 2 explores the understanding of sustainable luxury products in consumers' mind, and the experience of purchasing luxury fashion goods in a mature market; this helps to understand the motivation and attitude toward sustainable luxury fashion products. Section 3 investigated participants lifestyle and divided them into three groups in order to compare their attitudes towards sustainable luxury

fashion products, and related behaviour by the luxury industry.

This study is designed according to a constructivist Grounded Theory approach (Charmaz 2006). The data were coded and processed step-by-step, and key influencing factors of sustainable luxury fashion have been identified. The coding process involved open coding, axial coding and selective coding.

The study begins from open coding, which breaks down the data into groups of meaning (Goulding, 2000). All of the original transcripts were analysed line-by-line by Nvivo12, while vague or irrelevant statements were excluded. The factors affecting sustainable luxury consumption were classified. Relevant sentences from the interview materials were coded with an unbiased attitude and open mind. Axial coding was achieved by specifying relations by constant comparison, to group previous codes and to form final theory, and the core categories (Lee et al., 2005). Categories, defined by (Corbin and Strauss, 1990), are higher in level and more abstract than the concepts they represent. This process is the basis of theory construction (Lee et al., 2005).

In selective coding process, all the concepts should be pulled together to explain the phenomenon and should have theoretical significance from the data (Lee et al., 2005).

3.6.2 Quantitative Research

Data analysis strategy is based on the research objectives and problems. One of the purposes of this study is to use EFA and CFA to develop independent measurement scales for questionnaire survey. Based on the survey data, SEM was used to clarify the relationship between the variables. In addition, we use chi square analysis to clarify the differences of consumer types. This study is based on IBM spss 26.0 and Amos 24.0. The main purpose of this study is to test the hypotheses of this study and answer the main questions and sub-questions.

Based on the model introduced in the previous chapter, this paper studies the consumer types and consumption. It can be summarised as follows:

3.6.2.1 Factor Analysis

Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) are two statistical techniques that are used to

- (1) reduce a large number of variables into a smaller set of variables (factors).
- (2) establish underlying dimensions between measured variables and latent constructs, thereby allowing the formation and refinement of theory, and
- (3) provide construct validity evidence of self-reporting scales. (Williams, Onsman, and Brown, 2010, p.2)⁹⁰.

EFA:

Exploratory factor analysis (EFA) refers to a statistical technique to explore and identify possible underlying factor structures of a set of observed variables (Suhr, 2006). This study followed (Williams et al., 2010)'s five steps to analyse the EFA.

Step1: Is the data suitable for factor analysis?

It contains sample size, factorability of the correlation matrix and Kaiser-Meyer-Olkin (KMO) measure of Sampling Adequacy/Bartlett's Test of Sphericity. *Sample size* is recommended "100 as poor, 200 as fair, 300 as good, 500 as very good, and 1000 or more as excellent"(p.4). *Factorability of the correlation matrix* should be used in the EFA process displaying the relationships between individual variables.(p.5). Hair et al. (1995) suggested loadings using the rule of thumb as ± 0.30 =minimal, ± 0.40 =important, and ± 0.50 =practically

⁹⁰ Williams B, Onsman A, Brown T. Exploratory factor analysis: A five-step guide for novices. Australasian journal of paramedicine, 8(3), 2010. p.2.

significant. The factorability of 0.3 indicates weak relationship (30%) and when this value is at this level, it is impractical to determine, of the data, if the variables are correlated with each other or the dependent variables.

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy/Bartlett's Test of Sphericity: Prior to the extraction of the factors, Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity should be used to assess the suitability of the respondent data for factor analysis. The KMO index is recommended particularly when the cases to variable ratio are less than 1:5. The KMO index ranges from 0 to 1, with 0.50 considered suitable for factor analysis. If the result of the Bartlett's Test of Sphericity is significant ($p < 0.05$), then the data is suitable for factor analysis.

Step2: How will the factors be extracted?

In this study, the factor analysis is adopted as it is preferable compared to principal components analysis (PCA), as factor analysis only analyzes shared variance and yield the same solution (all other things being equal), avoiding the inflation of estimates of variance accounted for (Costello and Osborne, 2005).

Step 3: What criteria will assist in determining factor extraction?

In factor extraction, the rules and approaches are multiple, including Kaiser's criteria (eigenvalue > 1 rule), the cumulative percentage of variance extracted, the Scree test, and parallel analysis (Williams et al., 2010). First, with regards to the Cumulative Percentage of Variance and Eigenvalue > 1 Rule, the explained variance is commonly as low as 50-60% in the humanities (Hair et al., 2010) and the total factors should have an eigenvalue > 1 (p.6)⁹¹. The second step is the scree test. The scree test is subjective because it uses the straight line through the smaller eigenvalues and the data points above the debris or break (i.e., not including the point at which the break occurs) is the number of factors to be retained. Third, in *parallel analysis*, "factors are retained when actual eigenvalues surpass random ordered

91 Ibid, p.6.

eigenvalues⁹² (p.8)".

Step 4: Selection of Rotational Method

Rotation can help to simplify and clarify the data structure and Varimax rotation is the most common choice with extraction methods (Costello and Osborne, 2005). Orthogonal rotations produce factors that are uncorrelated, which results in a loss of valuable information if the factors are correlated; oblique methods, allowing the factors to correlate (i.e., allow the X and Y axes to assume a different angle than 90°) (Osborne, 2015), render a more accurate solution (Costello and Osborne, 2005). In this study, some correlation among factors are expected, therefore oblique rotation methods were adopted.

Step 5: Interpretation

Interpretation refers to labeling a factor that contains a set of variables, usually no less than two or three and these labels reflect the theoretical and conceptual intent. After rotation, the one with item loadings above 0.30, no or few item crossloadings, no factors with fewer than three items has the best fit to the data⁹³(p.7) (Costello and Osborne, 2005).

EFA is in the exploratory process of scale development and construct validation and not designed to test hypothesis. After determining the factors by EFA technique, it is time to move to confirmatory factor analysis (CFA) to confirm an expected underlying structure on prior empirical and theoretical grounds (Brown and Moore, 2012).

CFA:

Confirmatory Factor Analysis (CFA) is a statistical technique to verify the factor structure of a set of observed variables (Suhr, 2006 p.1). It is commonly used in the process of scale development to examine the latent structure of a test instrument. In this study, CFA was applied to assess the validity and to evaluate the equivalence of measurement models

92 Ibid, p.8.

93 Costello, Anna B., and Jason Osborne. "Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis." *Practical assessment, research, and evaluation* 10(1), 2005. p.7.

across distinct groups (e.g., demographic groups), (Brown and Moore, 2012). CFA, as an analytic tool for construct validation, can provide compelling evidence of the *convergent and discriminant validity* of theoretical constructs. Compare with traditional analytical method (e.g., ordinary least squares approaches). CFA offers the unique advantage “the resulting estimates of convergent and discriminant validity are adjusted for measurement error and an error theory”(p.5). According to Stapleton (1997), hypotheses can be tested due to having the predetermined model. CFA, “after specifying the a priori factors, seeks to optimally match the observed and theoretical factor structures for a given data set in order to determine the "goodness of fit" of the predetermined factor model”⁹⁴ (p.7). Additionally, CFA provides a framework for assessing the equivalence of measurement models across distinct groups.

The procedure of CFA, according to Stapleton (1997) is as follows:

- (1) It begins with either a correlation matrix or a variance/covariance matrix or some similar matrix. The proposed model, based on theories or data, specify “predetermination of the degree of correlation, if any, between each pair of common factors, predetermination of the degree of correlation between individual variables and one or more factors, and specification as to which particular pairs of unique factors are correlated⁹⁵.(p.8)”
- (2) The CFA can be conducted with computer programmes such as SPSS , AMOS, LISREL. The fit statistics test all of the parameters simultaneously and are evaluated to determine which proposed model(s) best explain the relationships between the observed and latent variables by estimating the parameters of the model and determining the goodness-of-fit of the model to sample data on measured variables⁹⁶ (p.9).

94 Stapleton, C. D. (1997, January). Basic concepts and procedures of confirmatory factor analysis. Paper presented at the annual meeting of the Southwest Educational Research Association, Austin, TX. Retrieved from <http://ericae.net/ft/tamu/Cfa.htm>

95 Ibid, p.9

96 Ibid, p.9.

(3) The fit statistics test: it evaluates the model by assessing how well the competing models fit the data. Examples of these statistics include the *chi square*/degrees of freedom ratio, the Bentler comparative fit index (*CFI*) (Bentler and Weeks, 1980), the parsimony ratio, and the Goodness-of-fit Index (*GFI*) .

Chi square /degrees of freedom ratio:

The chi-square is the most popular method in the past 100 years to test “if more cases fell into one category (i.e., goodness of fit) or if two variables are related based on the distribution of cases (i.e., independence)”⁹⁷(p.8)(Sharpe, 2015). Smaller value rather than larger values indicate a good fit. However, it is very sensitive to sample size, rendering it unclear in many situations whether the statistical significance of the chi square statistic is due to poor fit of the model or to the size of the sample (Marsh, Balla, and McDonald, 1988).

Goodness of Fit Index (GFI)

The goodness of fit index refers to “a measure of the relative amount of variances and covariances jointly accounted for by the model”⁹⁸(Joreskog and Sorbom, 1986, p. 141). The best fit of the model is that the GFI is close to 1.00. Mulaik (1987) noted, “a goodness-of-fit test evaluates the model in terms of the fixed parameters used to specify the model, and acceptance or rejection of the model in terms of the over identifying conditions in the model”⁹⁹(p. 275). Thus, a variety of statistics has been developed to assess overall model fit. Marsh et al. (1988) recommended assessment of fit should include at least one of the FFI2, LHR12, χ^2 /df, TLI, and CAKJ2 indexes, as well as the examination of parameter estimates in relation

97 Sharpe, Donald. "Chi-square test is statistically significant: Now what?." *Practical Assessment, Research, and Evaluation* 20(1), 2015, p.8.

98 Joreskog, K. G., & Sorbom, D. LISREL vi: Analysis of linear structural relationships by maximum likelihood and least squares methods. Mooresville, IN: Scientific Software, 1986. p.141

99 Mulaik, Stanley A. "A brief history of the philosophical foundations of exploratory factor analysis." *Multivariate Behavioural Research* 22(3), 1987. pp.267-305.

to substantive issues and the examination of residual covariances. The details of model fit indices are presented in the next section.

Figure 3.8 A Hierarchical Classification of Goodness-of-Fit indices

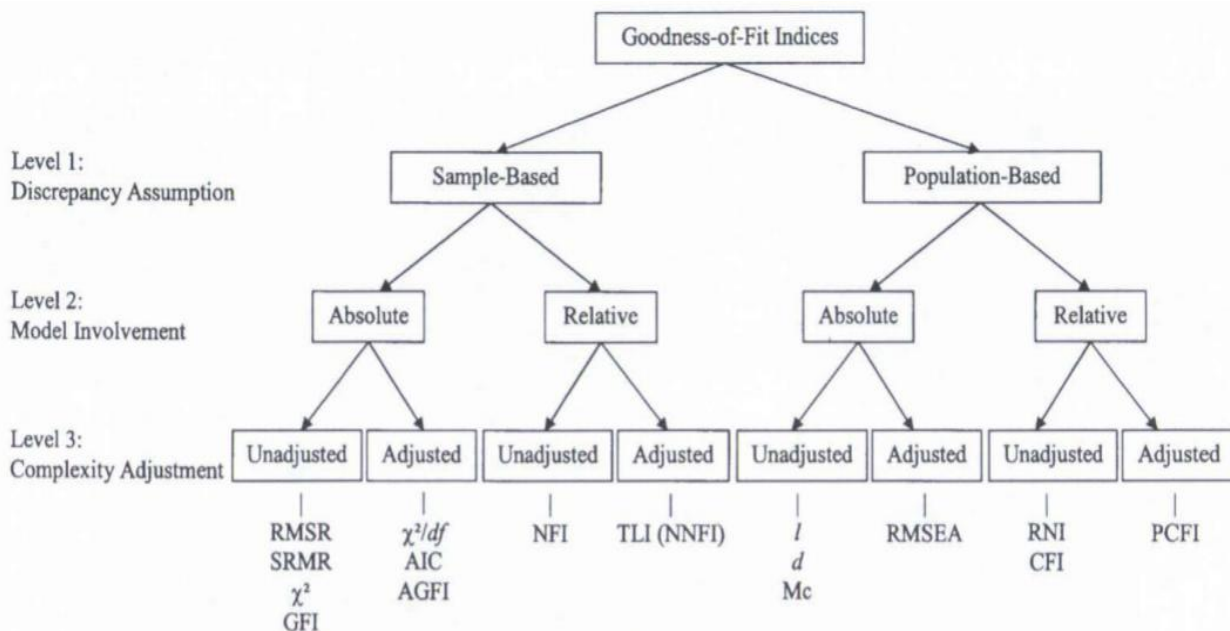


FIGURE 1

A Hierarchical Classification of Goodness-of-Fit Indices

Note: RMSR =root mean square residual ; SRMR =standardized root mean square residual; GFI =goodness-of-fit index; AIC = Akaike information criterion; AGFI = adjusted goodness-of-fit index; NFI = normed fit index; TLI = Tucker-Lewis index; NNFI = non-normed fit index; l= the estimate of noncentrality parameter; d = the estimate of minimized population discrepancy function; Me = McDonald's centrality index; RMSEA = root mean square error of approximation; ANI = relative noncentrality index; CFI = comparative fit index; PCFI = parsimony comparative fit index

Source: Sun, J. (2005)¹⁰⁰, p.246.

(4) Interpretation

It should be noted that more than one model can be determined that will adequately fit the data when interpreting the results from CFA. The fit should be simultaneously evaluated from multiple fit statistics and AMOS 24.0 has been employed to “improve the model by

100 Sun, Jun. "Assessing goodness of fit in confirmatory factor analysis." *Measurement and evaluation in counseling and development* 37(4), 2005. pp.240-256.

exploring which parameters might be freed that had been fixed and which might be fixed that had been freed.”¹⁰¹(p.11). The details of fit tests are reported in the next section.

3.6.2.2 Hypothesis Test

Structural equation modeling (SEM) is a set of linear equations that simultaneously examine a set of relationships among independent variables(IV) and dependent variables, either continuous or discrete (Ullman and Bentler, 2003). It is also referred to as “causal modeling, causal analysis, simultaneous equation modeling, analysis of covariance structures, path analysis, or confirmatory factor analysis”(p.661)¹⁰².

Ullman and Bentler (2003) summarized the main advantages of SEM. First and foremost, in social science, compared with other general linear models, SEM provides the unique analytical advantage to simultaneous test complex and multidimensional relationships and “test construct-level hypotheses at a construct level”¹⁰³(p.662). Second, the relationships are free of measurement error as the error has been estimated and removed by reliability test.

Measurement and Structural Models

The measurement model describes the relationships between observed variables (e.g., instruments) and the construct or constructs those variables are hypothesized to measure. In contrast, the structural model describes interrelationships among constructs(Weston and Gore Jr, 2006). CFA is used in testing the measurement model, and the hypothesized factors

101 Stapleton, C. D. (1997, January), p.11

102 Ullman, Jodie B., and Peter M. Bentler. "Structural equation modeling." Handbook of Psychology, Second Edition 2, 2012. p.661

103 Ibid, p.662.

are referred to as latent variables.

The process involves a four-stage process: “model specification (hypothesis), model estimation, model evaluation, and model modification”¹⁰⁴(p.663).

(1) Model specification/Hypothesis:

After specifying the hypothesized relationships to exist among variables in this research, the first step of CFA is model specification. “*Any unspecified relationships among variables are assumed to be equal to zero and latent variables are represented with circles and measured variables are represented with squares. A line with an arrow indicates a hypothesized direct relationship between the variables*”¹⁰⁵(Ullman, and Bentler, 2003, p663). The proposed relationships in the hypothesis can be directly translated into equations and the model then estimated. According to (Bentler and Weeks, 1980), the equation of regression can be described as:

$$\eta = \beta_0\eta + \gamma\xi$$

“ η represents more than the “endogenous” variables; β_0 represents all coefficients for structural relations among dependent variables, including the coefficients excepting those residuals and the highest order factors that are never dependent variables in any structural equation. r contains all variables that are not structural functions of other manifest or latent variables, and typically it will consist of three types of variables”¹⁰⁶(Bentler and Weeks, 1980. p.292).

Model identification: A model is to be identified if there is a unique numerical solution for each of the parameters in the model. The first step is to count the numbers of data points and the number of parameters that are to be estimated. The data in SEM are the variances

104 Ibid, p.663.

105 Ibid, p.663.

106 Bentler, Peter M., and David G. Weeks. "Linear structural equations with latent variables." *Psychometrika* 45(3), 1980. pp. 289-308.

and covariances in the sample covariance matrix. The number of data points is the number of nonredundant sample variances and covariances,

Number of data points = $p(p + 1) / 2$; where p equals the number of measured variables.

The model can be estimated only when the data points are more than parameters.

The second step is to examine the measurement portion of the model, which deals with the relationship between the measured indicators and the factors. The third step is to examine the structural portion of the model, looking only at the relationships among the latent variables (factors).

“By specifying fewer relationships between the variables than elements in the correlation matrix, researchers are able to test hypotheses about which relationships are significantly different from zero and which are not. If the model were to include all possible interrelationships between variables, it would be just-identified and would essentially reproduce the elements included in the correlation matrix. Because a just-identified model will always fit perfectly (being a summary of the observed data), it is of less interest to researchers. Finally, an underidentified model essentially requires more information than is available¹⁰⁷ (Weston and Gore Jr, 2006).

(2) Model estimation and evaluation:

There are two general aspects of a model to be evaluated. The first is to evaluate the overall fit of the model.

The overall fit tests are used to determine if the proposed model is consistent with the pattern of variances and covariances and a multiple of fit indices have been developed for assessing the overall fit in SEM: these including chi-square(χ^2), root mean square error of approximation (RMSEA), root mean square residual (RMR), standardized root mean square

¹⁰⁷ Weston, Rebecca, and Paul A. Gore Jr. "A brief guide to structural equation modeling." *The counseling psychologist* 34(5), 2006. pp.719-751.

residual (SRMR), the normed fit index (NFI), the nonnormed fit index (NNFI), the comparative fit index (CFI), the Tucker–Lewis Index (TLI), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), parsimony goodness-of-fit index (PGFI), and the parsimony normed fit index (PNFI) etc. However, it should be noted that one should avoid reporting all fit indices that have been developed, but there is a certain disagreement on just which fit indices to consider for model evaluation (Schermeleeh-Engel et al., 2003).

According to (Schermeleeh-Engel et al., 2003), the Chi-square (χ^2) test is the fundamental fit to judge for a model. Other indices are evaluated simultaneously and are usually presented in the previous research, including: χ^2 and its associated p value, χ^2 / df , RMSEA and its associated confidence interval, SRMR, NNFI, and CFI. Hu and Bentler (1998) recommend to use SRMR, supplemented by NNFI, CFI, or RMSEA (NNFI and RMSEA are less preferable at small sample sizes), and SRMR, NNFI, and CFI derived from WLS estimation. These indices provide a more conservative and reliable evaluation of the fit of the model. Appropriate indices should be relatively robust to sample size effects; sensitive to model misspecification and, preferably, adjusted for complexity (Sun, 2005). The sample-size effect for true target models was nonsignificant for χ^2 ; was substantial for GFI, AGFI and RMR; and was small for TLI. TLI was the only incremental indicator but it had a few extreme outliers when sample sizes were small (Marsh et al., 1988). Table 3.8 provides an overview over some rule of thumb criteria for goodness-of-fit indices:

Table 3.8 An Overview over Some Rule of Thumb Criteria for Goodness-of-fit Indices

Fit Measure	Good Fit	Acceptable Fit
χ^2	$0 \leq \chi^2 \leq 2df$	$2df < \chi^2 \leq 3df$
<i>p</i> value	$.05 < p \leq 1.00$	$.01 \leq p \leq .05$
χ^2/df	$0 \leq \chi^2/df \leq 2$	$2 < \chi^2/df \leq 3$
<i>RMSEA</i>	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$
<i>p</i> value for test of close fit (<i>RMSEA</i> < .05)	$.10 < p \leq 1.00$	$.05 \leq p \leq .10$
Confidence interval (CI)	left boundary of CI = .00 close to <i>RMSEA</i> ,	close to <i>RMSEA</i>
<i>SRMR</i>	$0 \leq SRMR \leq .05$	$.05 < SRMR \leq .10$
<i>NFI</i>	$.95 \leq NFI \leq 1.00^a$	$.90 \leq NFI < .95$
<i>NNFI</i>	$.97 \leq NNFI \leq 1.00^b$	$.95 \leq NNFI < .97^c$
<i>CFI</i>	$.97 \leq CFI \leq 1.00$	$.95 \leq CFI < .97^c$
<i>GFI</i>	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI < .95$
<i>AGFI</i>	$.90 \leq AGFI \leq 1.00$, close to <i>GFI</i>	$.85 \leq AGFI < .90$, close to <i>GFI</i>
<i>AIC</i>	smaller than <i>AIC</i> for comparison model	
<i>CAIC</i>	smaller than <i>CAIC</i> for comparison model	
<i>ECVI</i>	smaller than <i>ECVI</i> for comparison model	

Note. *AGFI* = Adjusted Goodness-of-Fit-Index, *AIC* = Akaike Information Criterion, *CAIC* = Consistent *AIC*, *CFI* = Comparative Fit Index, *ECVI* = Expected Cross Validation Index, *GFI* = Goodness-of-Fit Index, *NFI* = Normed Fit Index, *NNFI* = Nonnormed Fit Index, *RMSEA* = Root Mean Square Error of Approximation, *SRMR* = Standardized Root Mean Square Residual.

^a*NFI* may not reach 1.0 even if the specified model is correct, especially in smaller samples (Bentler, 1990). ^bAs *NNFI* is not normed, values can sometimes be outside the 0-1 range. ^c*NNFI* and *CFI* values of .97 seem to be more realistic than the often reported cutoff criterion of .95 for a good model fit.

Source: Schermelleh-Engel, Moosbrugger, and Müller (2003)¹⁰⁸. p.52.

The second aspect of evaluating is about the significance of particular parameters of the model (regression coefficients and variances and covariances of independent variables).

In addition to considering overall model fit, it is important to consider the significance of estimated parameters, which are analogous to regression coefficient (Weston and Gore Jr, 2006). Standardized estimates compare the relationships among latent variables. Negative estimates of error variance (Heywood cases) result from a standardized factor loading or path coefficient greater than 1.0, which indicates a poorly specified model (Weston and Gore Jr, 2006).

108 Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of psychological research online*, 8(2), 2003. pp. 23-74.

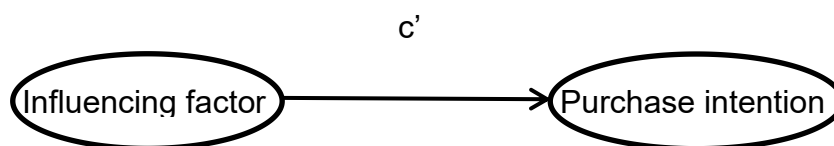
(3) Model Modification:

The reasons for modifying a SEM model are to improve fit (especially in exploratory work) and to test hypotheses (in theoretical work)(Ullman et al, 2003). This study uses the Chi-square difference test. If models are nested (models are subsets of each other), the χ^2 value for the larger model is subtracted from the χ^2 value for the smaller nested model and the difference, also a χ^2 , is evaluated with degrees of freedom equal to the difference between the degrees of freedom in the two models.

Mediation Effect Test

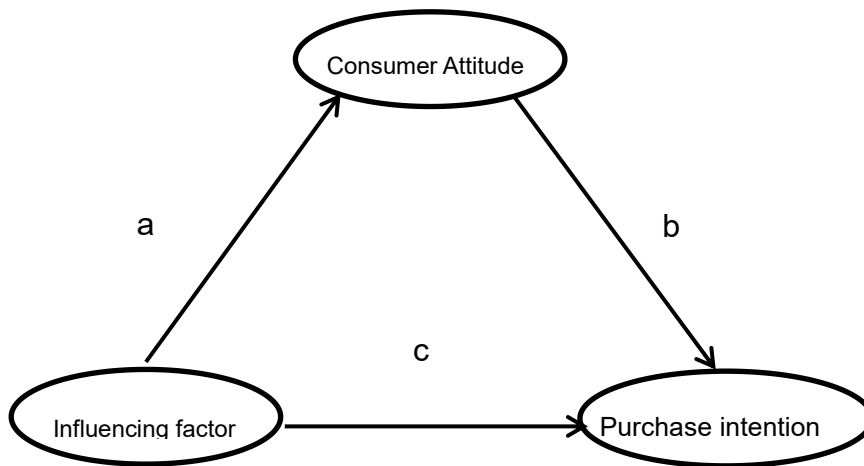
The main purpose of mediation analysis is to check whether the causal effect of the independent variable (influencing factor) on the dependent variable (purchase intention) is caused by the mediator (consumers' attitude). In this study, following the method of modern procedures in partial least squares structural equation modeling (PLS-SEM) (Carrión et al., 2017), Figure 3.9 shows the total effect c' of the causal relationship between variables influencing factor and purchase intention, and Figure 3.10 shows a mediated effect in which the influencing factor exerts an indirect effect $a \times b$ through influencing factor on purchase intention. The causal relationship can be drawn as:

Figure 3.9 Simple Causal relationship (IF affects PI)



Source: Author's analysis.

Figure 3.10 General Mediating Model



Source: Author's analysis.

The relationships between the independent variable (influencing factor) and dependent variable (purchase intention) can be explained. The test for mediation is to examine the relationship between influencing factor and purchase intention, the influencing factor and consumer attitude, attitude and purchase intention. All the three correlations should be significant if mediator exists.

The three regression equations of the mediation model, proposed by Baron and Kenny (1986), are as follows:

$$PI = c + c' \times IF + e \quad (1)$$

$$CA = a + a \times IF + e \quad (2)$$

$$PI = b + c \times CA + b \times CA + e \quad (3)$$

Where PI, IF, CA denotes Purchase Intention, Influencing Factor and Consumers' Attitude. "e" means the error. The indirect effect (ab) represents the effect of IF on PI that is mediated by CA.

According to Carrión et al. (2017), the procedures are as follows:

(1) Step 1: Determining the significance of indirect effects and their magnitude.

According to researchers, bootstrap test should be conducted first to obtain necessary information about the population distribution. The Amos software was adopted with the number of bootstrap samples of 2000 and the output provides the upper and lower bounds as well as an exact p-value to test the indirect effect against zero (Woody, 2011). Next, this study selected an error probability of 5%, a 95% confidence interval must be determined with a 2.5% probability of error at each tail when conducting a two-sided test. If zero is not included in the confidence interval I (between upper level and lower level), a researcher can assume that there is a significant indirect effect (Carrión et al., 2017).

(2) Step 2: Determining the type of effect and/or mediation.

A mediating effect exists when the indirect effect $a \times b$ in step 1 is significant. The mediation types are twofold: full and partial mediation. "A full mediation is indicated in the case where the direct effect c is not significant, whereas the indirect effect $a \times b$ is significant."¹⁰⁹(p177.). Partial mediation refers to both the direct effect c' and the indirect effect $a \times b$ are significant. In other words, if only the direct effect is significant, there is no mediating effect. If the p value of the indirect effect is lower than 0.05, indicating the significance of indirect effect, the existence of mediation effect is proven.

In addition, this study also adopted frequency distribution analysis, which is a general descriptive analysis method for describing the demographic profile of respondents. The aim of this method is to express detailed values by producing bar charts, pie charts or tables of frequency number, percentages, and cumulative percentages (Malhotra, 2009). One-way ANOVA was applied to test demographic characteristics' relationship with sustainable luxury fashion PI. One-sample t-test was used to identify the means of contextual factor, hedonic value, uniqueness value, social value and value for money scale separately with the purpose of comparing their mean scores with mid-point ('3'=neither disagree nor agree). The significance value of each measurement can be shown by one-sample t-test analysis.

¹⁰⁹ Preacher K J, Kelley K. Effect size measures for mediation models: quantitative strategies for communicating indirect effects[J]. Psychological methods, 16(2), 2011. pp. 93.

“Dependent sample t-test can be calculated using the Statistical Package for Social Science (SPSS)” (Gerald, 2018, p.52)¹¹⁰. Bivariate regression analysis is also applied to test the correlation between only one predictor variable and one criterion variable (Malhotra and Morris, 2009).

3.7 Chapter Summary

The purpose of the methodology chapter is to develop an appropriate research method to test hypotheses and ultimately address research problems. First, research design methods have been selected on the basis of the research objective. A survey conducted with an online questionnaire was selected for collecting data and testing proposed hypothesis. Secondly, secondary and primary research strategies are presented, while data collection is the procedure of gaining primary information. Finally, it is important to choose appropriate analytical methods, both for preliminary data analysis, and for hypothesis testing. The following chapter describes the data analysis.

Chapter 4 Data Analysis

4.1 Introduction

The previous chapter summarized the methodology used in this research. This chapter started with the analysis of qualitative research based on grounded theory, followed by data analysis of pilot study to reduce items for the quantitative survey. The Section 4.2 details the analysis of quantitative research results, which contains the pretesting of the questionnaire

110 Gerald, B. A brief review of independent, dependent and one sample t-test. *International Journal of Applied Mathematics and Theoretical Physics*, 4(2), 2018. pp. 50-54.

survey, and the hypothesis testing using the structural equation modeling (SEM). After purifying the measurements of the model, the proposed model and hypothesis were formed, tested and reported in this section.

4.2 Analysis of Qualitative Research Data

4.2.1 Understanding of Sustainable Luxury Fashion

Previous studies claimed that a majority of younger consumers (18-34 years old) perceived a contradiction between luxury and sustainability (Kapferer and Michaut-Denizeau, 2014). However, this study reveals a different trend that most of our respondents gave different answers in this question. They believe these two concepts only contradict with each other in specific conditions including: overconsumption; unsustainable rare materials; uneasy to get recycled; and over packaged.

Before understanding the relationship between luxury and sustainability, it is essential to understand how the participants define luxury. From the interview responses, '*luxury goods are non-necessities, with very high price, including famous brand including LV, GUCCI etc.* (15, 27)' and 'The price of luxury products is much more than the costs. (23) '. The statements are in line with Teimourpour and Heidarzadeh (2011) 's definition that luxury goods refer to products 'with different characteristics from different perspectives including symbols of wealth, status, high quality and price, providing pleasure, prestige and non-essential items' (p. 311). Consumers who define luxury mainly as non-necessity express the ambivalence between luxury fashion and sustainability. They argue that material used in luxury goods cannot be fully sustainable, as these products are not easy to be recycled or reused 'In industrial society, everything we wear or use cannot be environmentally friendly unless they all use natural material such as animal fur, but this is not ethical.' (I23). Another reason is *overconsumption*: 'some consumers may over purchase luxury shoes for instance, only because they have the habit of collecting shoes (I20). The last reason is the *over*

packaged phenomenon especially in cosmetics products. “I bought a lipstick online for my girlfriend, but when I received it I was shocked. Inside the big box, there is a fake rose and other decorated gadgets, then open the plastic beautiful package, there is another small bag, I finally found the lipstick inside of the tiny plastic bag. Oh my god, I don’t think they need to do this because this is too much’(I13).

Consumers who define luxury mainly by its superior quality or brand equity, show a lower level of contradiction between luxury and sustainability, which is partly in accordance with Kapferer and Michaut-Denizeau (2014)’s findings while participants who define luxury mainly by price, or its rarity, also express that luxury and sustainability are not contradictory. This is because to some extent sustainable products belong to luxury products. ‘I think the price of green products is more than ordinary products and so as to luxury products’ (7). This result suggests that participants tend to believe luxury and sustainable development are compatible. For example, ‘It has good quality and lasts long, may be for ten years or even longer to pass down to the next generation. This is a bag that my mom gave to me, but I can still use it’(I3). ‘I think they are not contradictory because luxury industry can make their material environmentally friendly’ (I4, 20, 18). Most of interviewees agree with this point. Thus, ‘sustainable material’ and ‘good quality (long-lasting)’ features of luxury could be part of sustainability. Also, ‘technology’ development could benefit the industry to do better for the environment. ‘Improving technology can help the luxury industry to achieve sustainable development’ (I21).

These can be summarised in the figure below.

Figure 4.1 Relationship of Sustainability and Luxury



Source: Author's analysis from interview result.

4.2.2 Consumers Type of Sustainable Lifestyle

Consumers lifestyles have been classified into three categories according to in-depth interview results, this is in agreement with Qu, et al. (2015)'s research result. They applied the Q methodology to categorize Chinese consumers based on their perspectives on sustainable consumption. 'Chinese consumers can be classified into three groups: sustainable (Group 1), potential sustainable (Group 2) and unsustainable consumers (Group 3), each according to their values and attitudes towards sustainable consumption'¹¹¹(p.14211)(Qu et al., 2015). Group one consumers are those who highly care about the environment, and protecting the environment is part of their lifestyle; therefore, they would like to engage in sustainable consumption, hoping to help reach a balance between human beings and nature. On the other hand, they are against unsustainable behaviour and would like to actively take part in sustainable consumption. 'When I use a tissue, I would tear it up into three pieces to use. I would turn off the light when not needed. I would try my best to save the energy.' (I8).

Most respondents are in the group 2 spectrum while a few are highly sustainable consumers (Table 4.1). Group 2 sees sustainable consumption as positive behaviour to protect the environment and they believe people should conduct sustainable consumption but they are very sensitive to the price of products and only would like to insist green purchasing when the government provided rewards (Qu et al., 2015). In addition, the green marketing would to some extent impact their consumption behaviour if some external

111 Qu, Ying, et al. "Developing more insights on sustainable consumption in China based on Q methodology." *Sustainability* 7(10), 2015. pp. 14,211-14,229.

incentives are provided. According to the survey, majority of the respondents are belonging to Group 2, which means that Chinese consumers’ .

Even though some luxury consumers are well educated and know the importance of sustainable development, there is still a few consumers are unsustainable consumers (I5, I14, I21).

Group 3 is not aware of what sustainable consumption behaviour is and what sustainable consumption is about. They are very sensitive to product price, which indicates if green product prices are more expensive than that of the corresponding products, they would not buy them. Meanwhile, they are not concerned about the product quality or the product packaging. They seldom use reusable substances, and they do not care about the result of their consumption behaviour. They also would not want to understand the government policies on sustainable consumption. I21 mentioned that ‘Marketing campaign would has no effect on my purchase behaviour; the impression is just like it’s a big company and that is what the brand should do’ but I will buy my own way’.

Table 4.1 Consumers Segmentation

Group	Naming	Feature and behaviour	Response to sustainable marketing	Interviewees (I)
Group 1	Sustainable consumers	Commit to protect the environment; conduct sustainable consumption as part of lifestyle	Yes	8, 11, 20,22,25
Group 2	Potential sustainable consumers	Sensitive to price; adjust their consumption style according to policies or laws	Yes, but with conditions.	1,2,3,4,6,7,9, 10,12,13,15,16, 17,18,19,23

Group 3	Unsustainable consumers	Unsustainable behaviour; Sensitive to price; Not caring about the result of consumption behaviour; Only conduct sustainable behaviour when it is mandated by the government.	No	5, 14, 21, 24, 26
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Source: Author's analysis from interview responses and adapted from Qu, Y., et al. (2015).

4.2.3 Grounded Theory Data Analysis

3.1.1 Open Coding

The study begins with open coding, which is 'the process of breaking down the data into distinct units of meaning' *Christina Goulding (2000)*. All the original transcripts were analysed line by line with Nvivo12, while vague or irrelevant statements were excluded. The factors affecting sustainable luxury consumption were classified. Relevant sentences from the interview materials are coded with an unbiased attitude and open mind. A total of 334 items were obtained for note creation, and through browsing, coding, and extracting relevant concepts, 30 initial categories (label A) have been formed as shown in Table 4.2.

Table 4.2 Open Coding

Representative quotations from the interviews	Initial concept
If the sustainable luxury products have creative design, for example adding personalised components, I may buy it.	A1:creative choice
I would like to choose the novel/unpopular products that are usually not favourable by many others.	A2:Novelty, avoid of similarity
I like creative accessories or shoes that can perfectly match my identity.	A3: Personal identity
I don't like to follow others' choices; if other people around me buy a LV handbag, I would definitely not choose the same one even though I like it	A4:Distinctive
I sometimes shop for luxury due to great stress, and I want to forget my work for a short time.	A5:Relax

You know, when I hang around in the luxury brand shop, seeing the creative window display and the warm smile from the employees especially when they are beautiful girls, I feel very stress releasing.	A6:Stress releasing
The luxury fashion I buy, whether sustainable or not, must fit my own taste.	A7:Personal taste
My mom sometimes look for beautiful dress for me and when she says: it really fit you! I might spend money on this luxury dress.	A8:Family member, friends or others' referent
I shop for special occasions, because it's the age to wear something high-end especially when you go to a party or academic meeting.	A9:Social occasion
Well, to some extent it is a kind of showing off, to let others know that I have a LV handbag.	A10:Face , vanity
My information of luxury fashion is from key opinion influencers, like famous stars on social network. After trying on in retailer shop, if that one fit on me, I would purchase.	A11: Social influencer ; Key opinion leaders
I always want to be key low. I would follow the others' choice.	A12:Conformity
Luxury is a reflection of success or status especially when you attend important meetings.	A13:Status
The sustainable luxury products must have distinctive quality.	A 14: Good quality
Most others would not have the financial ability to purchase.	A15:Premium price
If they choose recycled material, they need to make sure the long-lasting quality. I would consider cost per wear, using luxury for different occasions with traditional black or white colour.	A16:Long-lasting , cost per wear
The (sustainable) luxury fashion I buy must be of authentic design, which can differentiate from ordinary products.	A17: Authentic design, differentiation
Sustainable luxury must be of great service especially after sale services so that consumers would have no concern or doubt about the new high-tech recycled materials	A18:Service
Each Luxury brand has its brand history. The products I buy must be well-known brands and the one I like most.	A19:Brand value
I care about price. If the price of sustainable luxury is higher only due to the sustainability, I definitely would not buy this one.	A20: Relative price, Value for money
I think luxury clothes made from natural material would be comfortable and healthy to us.	A21:Health, natural materials
I believe the new sustainable luxury would do little harm to the environment.	A22:Environmental friendly Value
The packaging such as boxes should be able to be recycled. Some luxury brands like Mulberry would collect your old products to get recycled.	A23: Recycling
I might consider second hand handbags or accessories instead of clothes.	A24:Second hand
I will definitely not buy any luxury fashion made from wild animal furs.	A25: Animal-friendly

Wild animal furs should not be a trendy, which is terrible for the nature.	value
Cheap labour is a normal phenomenon but I hope the employees living conditions would be improved when they work for luxury brands.	A26: Cheap labour or sweatshop
If consumers get informed about the pollution from fashion industry by showing the relationship between their each purchase and the amount of pollutant, I will change my behaviour to buy sustainable luxury fashion.	A27 Sustainable Awareness, knowledge
Luxury industry should set good example at performing sustainable development or socially responsible strategies, so that other fashion industry would follow their trend.	A28: Sustainable product value
If we are told the sustainable story behind the clothes, and at the same time other values are the same, I would definitely buy sustainable ones for its contributions to the environment.	A29: purchase intention
I would like to buy sustainable luxury fashion with a 15% higher price at most.	A30: willingness to pay more

Source: Author's analysis.

3.1.2 Axial coding

Axial coding (Glaser and Strauss, 1967) is achieved by specifying relationships by constant comparison, to group previous codes and to form final theory, the core categories (Lee, Saunders and Goulding, 2005; Valor, 2007). Categories, defined by Corbin and Strauss (1990, p. 7), are higher in level and more abstract than the concepts they represent. This process is the basis of theory construction (Lee et al., 2005). The study aims to find out the internal logical relationship between the initial category's factors that affect consumers' purchase intention toward sustainable luxury fashion. This process refined the 30 initial categories from open coding and finally formed six core categories after recombining (Table 4.3).

The six core categories are: uniqueness value, hedonic value, social value, functional value, value for money and sustainable lifestyle. Uniqueness value refers to consumers' personal interests or tastes that are differentiated from others when purchasing sustainable luxury fashion. Hedonic value involves consumers' emotional feelings, such as stress releasing or relaxing. Social value refers to consumers decision is affected by others' evaluations or suggestions. General product value refers to sustainable luxury products general qualities which can satisfy consumers' requirements. Sustainable lifestyle refers to

consumers' way of living that is related to environmental-friendly, socially-responsible or animal friendly practices.

Table 4.3 The Categorization Process of Influencing Factors of Sustainable Luxury Fashion

Initial category	Sub-category	Core category
A1:creative choice	Creativity	Uniqueness Value
A2:Novelty, avoid of similarity	Avoid of similarity	
A3: personal identity	Self-identity	
A4:Distinctive	Uniqueness	
A5:Relax	Personal Hedonic Value	Hedonic Value
A6:Stress releasing		
A7:personal taste		
A8:Family member, friends or others' referent	Social referent	Social Value
A9:Social occasion	Social needs	
A10:Face , vanity	Face	
A11: Social influencer ; Key opinion leaders	Social influencer	
A12:Conformity	Conformity	
A13:Status	Status	
A14: Good quality	Quality	Functional Value
A15:Premium price	Premium price	
A16:Long-lasting , cost per wear	long-lasting	
A17: Authentic design, differentiation	Design	
A18:Service	Service	
A19:Brand value	Brand value	
A20: relative price, value for money	Value for money	Egoism/Value for money
A21:Health, natural materials	Health	Altruism /Sustainable lifestyle
A22:Environmental friendly materials	Eco-friendly Value	
A23: Recycling		
A24:Second hand		
A25: Animal-friendly value	Animal-friendly Value	
A26: Cheap labour or sweatshop	Social responsibly value	
A27 Sustainable Awareness	Environmental concern	
A28: Sustainable value		
A29: willingness to pay	sustainable Intention	Intention
A30: willingness to pay more		

Source: Author's analysis.

3.1.3 Selective coding

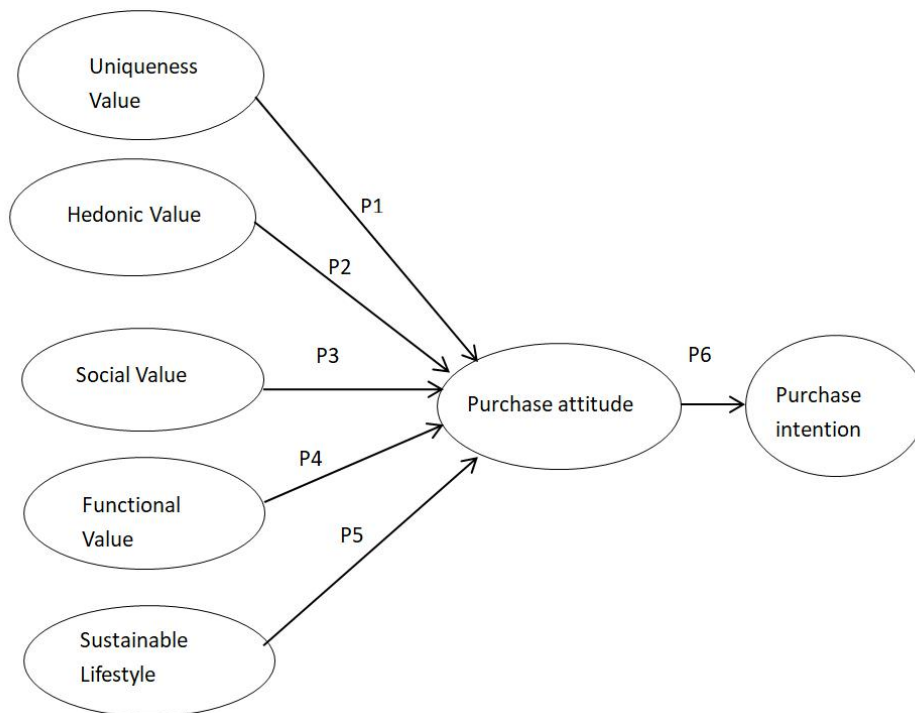
In selective coding process, all the concepts should be pulled together to explain the phenomenon and should have theoretical significance from the data (Lee et al., 2005). Through repeated comparison and analysis, it was found that personal value, social value, functional value, and sustainable value are the driving factors of sustainable luxury consumption; egoism and altruism are two aspects that directly influence the sustainable attributes of luxury. By integrating the existing literature, a theoretical model of influencing factors of sustainable luxury purchase intention has been formed.

4. Saturation Test

Grounded theory conclusion can only be reached when the data is saturated and sufficient theory has emerged (Cao, Sarker, and Sun, 2019). The remaining seven interview materials were left to determine whether the theoretical model achieved theoretical saturation by using the Nvivo 12 software. If new data or information appears, it would be added to the data pool before the coding process (Figure 3.7). When the data or information is saturated and enough theory is obtained, the test is passed and the theory is deemed stable (Aldiabat and Le Navenec, 2018). After the theoretical saturation test, there is no new category other than uniqueness value, hedonic value, social value, functional value and sustainable lifestyle, which indicate the determinants of sustainable luxury purchase have been fully explored. Therefore, it can be concluded these factors determine consumers' luxury purchase intention on sustainable fashion products.

Based on the above analysis, the influencing factors of sustainable luxury consumption are grouped into three main categories: sustainable luxury value, attitude and intention. The sustainable value contains uniqueness value, hedonic value, social value, functional value and sustainable value. Sustainable attitude involves altruism and egoism. The intention includes consumers' willingness to pay sustainable luxury and willingness to pay high price for sustainable luxury (Li et al., 2012). A theoretical model in China is formed (Figure. 4.2).

Figure 4.2 The Theoretical Model of Qualitative Research.



Note: "P" refers to Proposition. Source: Author's Analysis.

The term 'Proposition' is more appropriate than hypotheses in grounded theory as propositions involve conceptual relationships while hypotheses measures relations (Pandit, 1996)

P1: The stronger the uniqueness value of consumers, the higher likelihood of purchasing sustainable luxury.

P2: The stronger the hedonic value of consumers, the more likelihood of purchasing sustainable luxury.

P3: The stronger the social value of consumers, the more likelihood of purchasing purchasing sustainable luxury.

P4: The functional value of luxury products positively influences consumers' intention on purchasing sustainable luxury.

P5: Sustainable lifestyl positively influences consumers' intention on purchasing sustainable luxury.

P6: Consumers' attitudes towards sustainable luxury fashion affect their purchase intention.

4.2.4 Intention of Sustainable Luxury Fashion

Hedonic Value

Respondents in this study hold significantly different attitudes toward sustainable luxury products as they have various lifestyles in terms of sustainable development. Based on the interview results, intentions and motivations for purchasing luxury fashion products are mainly for fulfilling one's personal needs. This is understood as 'Self-oriented value or personal value' (Jain, 2018). 'Most consumers are egoistic; they buy luxury products only for their own happiness, and ignore the effects on the environment. Quality, need for uniqueness, the degree of preference or hedonism came first; the last thing I consider is eco-friendly even though I am an environmentalist, because I pay too much money on luxury goods (I8).

Uniqueness Value

All the interviewees express the luxury fashion products they buy must be different from others and this is seen as 'Need for Uniqueness' (R. Snyder and L. Fromkin, 1977; Tepper Tian et al., 2001). 'Sustainable feature might increase my satisfaction after purchasing, but what I care about most is whether the product can make me different.' (I9). Consumer's uniqueness value is 'an individual's pursuit of differentness relative to others that is achieved through the acquisition, utilization, and disposition of consumer goods for the purpose of developing and enhancing one's personal and social identity'(p.50)¹¹². It contains three characteristics, namely 'avoidance of similarity', 'creative choice' and 'unpopular choice' (Miremadi et al., 2011). For example, 'I don't like to follow others' choices; if other people around me buy a LV handbag, I would definitely not choose the same one even though I like it' (I27). 'If the sustainable luxury products have a creative design, for example adding personalised components, I may buy it.'(I17). 'I would like to choose the novel/unpopular

112 Tian K T, Bearden W O, Hunter G L. Consumers' need for uniqueness: Scale development and validation. *Journal of consumer research*, 28(1), 2001. pp. 50-66.

products that are usually not viewed as favourable by many others' (I19).

The natural materials may lead to unique designs and individuality, which can match the costs of sustainable fashion with increased perception of value (Lundblad and Davies, 2016) . Therefore, the luxury marketers should personalize the luxury fashion products and incorporate the brands' corporate social responsibility initiatives by using sustainable materials to match one's personal style (Ki and Kim, 2016a).

Utilitarian Motivation /practicality

Even though some consumers buy luxury products for collection as I20 mentioned: 'I may buy limited edition just for collection', most interviewees purchased luxury fashion products for personal use, although the price is much higher than the cost. Post-80s interviewees express their strong utilitarian motivation than post-90s counterparts; this is mainly due to they have job experience, more mature and less impulsive purchasing.

'The luxury fashion product I bought must be useful. I am a foreign student in the UK but my family is not as rich as many others. I purchased a luxury branded bag because I can use it for a long time' (I18).

'I only buy luxury products when I really need them. I believe in the high quality of a luxury brand, but I won't buy it for fun or for face' (I23).

Quality

Superior quality of luxury goods is an important motive for consumers to purchase, which is strongly linked to the product attribute long-lasting (Lundblad and Davies, 2016)). Interviewees view price as a cue of quality assessment, and they take it for granted. 'I believe luxury shoes or clothes own the best quality compared with other branded products' (I19). Consumers' expectation towards luxury products is unconsciously high in terms of quality; this is seen as perceived quality, which refers to 'the consumer's judgment about a

product's overall excellence or superiority' ¹¹³(Zeithaml, 1988, p. 3). 'Many luxury products are handmade or have a sophisticated design, and this is part of their core competitiveness in terms of superior quality' (I24).

On the other hand, interviewees also mentioned 'the quality depends on brands' (I26) or 'similar premium quality might also be found in not luxury fashion products' (I22). If luxury products use recycled material, they might doubt the quality (I27). Thus, in common with Cervellon(2013), industry should improve the technology to ensure the good quality and sustainability simultaneously, instead of altering the authenticity of luxury brands.

Wellbeing (health)

Consumers purchased sustainable luxury fashion products because they are self-benefit as mentioned before, wellbeing can be incorporated with sustainability in this respect (Henninger et al., 2017). Interviewees show strong purchase intention on healthy products and they would like to pay more money on this. 'Health is very important. I have heard about a piece of news about a bracelet which is made from poisonous chemical materials; if a child unintentionally eats a bead from it, the child may die.' (I4) 'I think clothes made from natural material would be comfortable and healthy to use' (I20). Similarly, consumers would like to pay more on healthy products if they know the effect. 'I would like to pay twice the price on luxury cosmetics only due to the natural and healthy original materials.' (I10).

Value for Money

Even though prior research argues that price plays a comparatively lesser role in consumers' purchase decisions (Jain, 2019b), and some claim consumers making sustainable consumption perceive value in noneconomic terms (Lundblad and Davies, 2016), this study found this was not the case. Price is one of the major determinants of

113 Zeithaml V A. Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence[J]. *Journal of marketing*, 52(3), 1988. pp. 2-22.

sustained green consumption behaviour; intention to pay the green price premium is the outcome of sustained green consumption (Biswas and Roy, 2015). 'The product price in western countries is much lower than that in China' (I5). 'I would buy more luxury products when I travel in foreign countries because the luxury products are cheaper than the same ones in mainland of China.'(I8)

This study found that sustainable products need consumers to pay more. 'I believe sustainable consumption to some extent equals luxury consumption, because satisfying this need costs, resulting in high prices (I7). However, some consumers would not buy very high priced sustainable luxury products. 'If the fashion product increased price only due to the sustainable strategy, I would not decide to buy it immediately but get more information about this product. If the whole manufacturing process including most of the materials changed, I would like to think about it; otherwise definitely not' (I27). 'Eco-friendly products are usually expensive; if the design does not fit me and price is high, I would not buy it. Most students would choose relatively low-priced luxury products' (I17).

In summary, several factors affecting sustainable luxury consumption were identified. The majority of these factors are self-benefits values, because consumers pay premium price for a premium price for luxury goods and they need to satisfy their personal needs first, then considering other factors.

Social value

Others-oriented (social) value influences sustainable luxury purchase intention(Jain, 2018). Many researchers have explored how social value plays an important role in shaping consumers purchase intention especially when products are seen as luxury goods (Amaldoss and Jain, 2008). Face culture has great influence on Chinese consumers consumption values due to the social prestige need which can generate a bandwagon effect (Jap, 2010). Similarly, this study further supported this view. 'I think we buy luxury items not because of the products themselves, but due to the mee-tooism. Friends around me always

buy new luxury fashion...shoes for example; I think if I get the limited edition, I will show off. Face comes first when I make luxury decisions; then followed by the need to get recognized by others' (I5). Another factor is seen as social identity, which is defined as 'a perception of oneness with a group of persons' and 'social identification stems from the categorization of individuals, the distinctiveness and prestige of the group'(p20) ¹¹⁴, (Ashforth, et al. 1989, p20). 'Clothes make the man. If a man wears luxury clothes, it may feel different' (I21). 'I was addicted to luxury products for a short time in the past. At that time, I believed that would be a package for me and I wanna be that kind of person. I sometimes search for key words like 'how to be an exquisite girl' and influenced by others recommendations about luxury branded fashion products' (I3).

Activating status motives led people to choose green products especially when shopping in public (Griskevicius et al., 2010) . Young consumers' green purchasing intentions are positively influenced by social and emotional values(Awuni and Du, 2016). 'If a green consumer buy sustainable products including luxury ones, it may increase the social identity around the green friend circle' (I8).

4.3 Analysis of Quantitative research

In the previous chapter, quantitative research method has been described and data has been collected for the purpose of this research. The questionnaire is provided in the appendix 2. This chapter started with the analysis for the pilot study, in which coefficient alpha was calculated and exploratory factor analysis was conducted. The pilot study purifies the scales of measuring different values and factors. Next, hypothesis test for the main study is reported.

114 Ashforth B E, Mael F. Social identity theory and the organization[J]. Academy of management review, 14(1), 1989. pp.20-39.

4.3.1 Data Analysis for Pretesting

Pretesting means the testing of the questionnaire on a small sample of respondents to identify and eliminate potential problems (Malhotra 2006, p31). It is a necessary part of the research before distributing the final questionnaires. The sample size of the pre-test should be five times of the total number of items in the questionnaire (Hair et al., 2013, p100). Therefore, a questionnaire survey with 240 respondents has been done in order to pre-test the questions. The pre-test was conducted by an online survey by a convenient sample in order to justify the variables and methods in this research. The steps are as follows.

(1) Non-response problem

In a questionnaire survey, the non-response problem is one of the significant issues and researchers should attempt to lower refusal rates (Ab Hamid et al., 2017). In this study, in order to avoid this problem, all the respondents should answer all the questions before they can submit the questionnaire.

(2) Total spending time.

Assuming that respondents should spend two seconds on each answer, so in total, they will need at least 96 seconds to answer the whole questionnaire. In SPSS, the first step was to delete the data with total seconds less than 96 seconds.

(3) Delete data with all the same answers.

This is achieved by calculating standard deviation. If the standard deviation is 0.00, it means participants choose the same answers for all the questions. These respondents are invalid for doing research and therefore should be deleted from the data collected (Table 4.4).

Table 4.4 the Unusable Data.

	Q9_行2	Q9_行3	Q10_行1	Q10_行2	Q10_行3	Q10_行4	STD
1	4	4	4	4	4	4	.51
2	3	4	4	3	3	3	.51
3	3	5	3	3	5	5	1.01
4	5	4	3	4	4	4	.73
5	4	4	4	4	4	4	.00
6	4	4	3	4	4	4	.39
7	5	5	3	3	3	3	.87
8	5	4	2	4	4	4	1.54
9	3	3	3	3	3	3	.00
10	5	5	3	5	5	5	.86
11	4	4	4	4	4	4	.66
12	4	4	4	3	4	4	.47
13	3	3	3	3	3	3	.24
14	4	4	3	3	4	4	.49
15	5	3	3	3	3	3	1.59
16	5	5	5	5	5	5	.24
17	5	5	2	3	4	4	1.34
18	3	5	2	3	3	3	1.30
19	3	5	2	4	4	4	.86
20	5	5	4	3	4	4	.66
21	3	3	3	3	3	3	.00

Source: Author's analysis.

After eliminating respondents who had not purchased luxury products and other invalid responses, there were only left with a sample size of 170 valid data left. The whole testing process lasted twelve days from 27 March to 7 April in 2021, which was on an online basis from a wechat social network. The majority of the respondents were frequent luxury buyers or textile students and teachers in order to make sure there was sufficient awareness of sustainable luxury fashion.

Reliability and Validity in pretesting

'Reliability can be defined broadly as the degree to which measures are free from error and therefore yield consistent results.'(Peter, 1979. p6)¹¹⁵. The reliability of the scales was evaluated by calculating :

115 Peter J P. Reliability: A review of psychometric basics and recent marketing practices. *Journal of marketing research*,16(1), 1979. pp. 6-17.

- (1) Cronbach's alpha;
- (2) assessing factor structure using exploratory factor analysis; and
- (3) inter-item correlations, and scale correlations for each measured scale.

The internal consistency is measured by Coefficient alpha. A low coefficient alpha indicates the items are not consistent with the construct (Churchill Jr, 1979).

Reliability is commonly measured by Cronbach' Alpha (Cronbach, 1951). Peterson (1994) pointed out that Cronbach' Alpha is a fundamental measure of estimating reliability of multi-item scales. Malhotra (2009) suggested the figure >0.6 is considered as reliable while if it below 0.4 is seen as unacceptable. The pre-testing results show that all the Cronbach's alpha are higher than 0.7, suggesting that the items have relatively high internal consistency. Biased questions were eliminated and unnecessary questions were deleted. As a result, the item 'I am more influenced by others' recommendations (like parents, friends or social networks) when choosing luxury items.' was removed from the measure of social value; the item "Sustainable luxury products I buy should have economic benefit (i.e. Cost per wear is low) " was deleted from the measure of 'value for money'. The item of 'There are few green luxury brands in markets and I can't choose eco-friendly products for an alternative' and 'Among the people around me, there are few people to buy environment-friendly luxury products' were removed from the measure of contextual factor. Table 4.5 shows the consumption results of Cronbach's alpha before and after item was deleted.

Table 4.5 Cronbach's Alpha Calculation Result

Variable	Cronbac h's Alpha	N of Items	After adjuste d	No of Items	Delete Item
Hedonic Value	0.743	3	0.743	3	-

Uniqueness Value	0.749	3	0.749	3	-
Social value	0.871	4	0.893	3	Delete 'I am more influenced by others' recommendations (like parents, friends or social networks) when choosing luxury items.
Value for money	0.901	3	0.930	2	Delete 'Sustainable luxury products I buy should have economic benefit (ie. Cost per wear is low) '
Contextual factor	0.803	6	0.803	4	Delete ' There are few green luxury brands in markets and I can't choose eco-friendly products for an alternative'. And ' Among the people around me, there are few people to buy environment-friendly luxury products
lifestyles	0.766	5	0.766	5	-

Source: Author's analysis.

Validity:

Validity refers to “the extent to which a concept is accurately measured in a quantitative study”¹¹⁶ (Heale and Twycross, 2015, p66). In the procedure of pretesting, content validity and construct validity were performed. Content validity refers to the extent to which a research instrument accurately measures all aspects of a construct ¹¹⁷(Heale, and Twycross, 2015, p66).

Then exploratory factor analysis was conducted to purify the scales (Churchill Jr, 1979). Construct validity generally refers to “the vertical correspondence between a construct which is at an unobservable, conceptual level and a purported measure of it which is at an

116 Heale, Roberta, and Alison Twycross. "Validity and reliability in quantitative studies." *Evidence-based nursing* 18(3), 2015 . pp. 66-67.

117 Ibid, p.66.

operational level.”¹¹⁸(Peter, 1981, p134). The main study tested the construct validity comprehensively, but in this part, exploratory factor analysis (EFA) is a statistical technique used to reduce variables into a smaller set to facilitate easier interpretations, and to identify latent constructs (Yong and Pearce, 2013).

Before conducting the factor analysis, the KMO and Bartlett’s test of sphericity were tested to measure sampling adequacy for data structure detection. The KMO test may vary between 0 and 1, with numbers ranging between 0.80 and 0.90 which support the use of factor analysis (Munro, 2005). Bartlett’s test of sphericity is used to test whether correlation matrix is suitable for factor analysis (Munro 2005). Principal component factor analysis (PCA) with varimax rotation was applied to the variables of four values and contextual factors influencing purchasing attitude and intention of sustainable luxury fashion. Before performing the PCA, the KMO values were tested and the result was 0.875 (Table 4.6) .The Barlett’s Test of Sphericity was statically significant (p=.000). Factors were extracted by the criteria of eigenvalues of 1 or more and the scree plot analysis.

Table 4.6: KMO and Bartelett’s Test Result.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.875
Bartlett's Test of Sphericity	Approx. Chi-Square	3375.569
	df	561
	Sig.	.000

Source: Author’s analysis.

118 Peter, J. Paul. "Construct validity: A review of basic issues and marketing practices." *Journal of marketing research* 18(2), 1981. pp. 133-145.

The exploratory analysis is to verify if the correct number factors extracted is higher than 0.6. It is significant at 0.000 (less than 0.05), $p < 0.001$, indicating that the correlation matrix is significantly different from the identity matrix, in which correlations between variables are all zero. The Kaiser-Meyer-Olkin (KMO) measure of sampling Adequacy is 0.814, and should be greater than 0.60, indicating sufficient items for each factor. The 15 items yield five factors on the attitude and intention on sustainable luxury fashion.

The Eigenvalue of the four factors is above 1, according to Kaiser’s criterion, indicating the five factors should be retained and they explained 66.938 percent of the variance (Table 4.7).

All the variables loaded strongly (>0.5) on the four factors and the total correlations for all the items were greater than 0.4. “The Cronbach’s alpha if item deleted” for most of items were smaller than the Cronbach’s alpha of the factors, indicating the high reliability of the constructs.

Table 4.7 Kaiser’s Criterion Test Result

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.010	31.629	31.629	6.010	31.629	31.629	2.883	15.176	15.176
2	2.191	11.531	43.160	2.191	11.531	43.160	2.784	14.652	29.828
3	1.772	9.326	52.486	1.772	9.326	52.486	2.764	14.548	44.376
4	1.553	8.176	60.662	1.553	8.176	60.662	2.187	11.509	55.884
5	1.192	6.276	66.938	1.192	6.276	66.938	2.100	11.054	66.938
6	.926	4.872	71.810						
7	.797	4.197	76.007						
8	.738	3.885	79.891						
9	.619	3.258	83.150						

10	.545	2.870	86.019						
11	.467	2.455	88.475						
12	.438	2.308	90.782						
13	.395	2.076	92.859						
14	.338	1.779	94.638						
15	.259	1.363	96.001						
16	.256	1.349	97.350						
17	.232	1.222	98.572						
18	.161	.848	99.421						
19	.110	.579	100.000						
Extraction Method: Principal Component Analysis.									

Source: Author's analysis.

The exploratory factor analysis was also conducted for attitude and intention (Figure 4.8). Items retained if the loadings were greater than the threshold of 0.60. The result show that all the items passed the factor loadings and correlation test with KMO value of 0.818 at p=0.000 level.

Therefore, the result indicates a five-factor structure (uniqueness value, hedonic value, social value, value for money and contextual factor) for the scale measures of beliefs about purchasing sustainable luxury fashion.

Table 4.8 Summary of Exploratory Factor Analysis Results

Items	Factor loading	Eigenvalue	Percent of variance	Item-total correlation	Cronbach's Alpha if item deleted	Cronbach's alpha
Hedonic Value I feel personally happy when purchasing for sustainable luxury fashion items.	.756	6.010	31.629	.649	.853	0.743
Buying sustainable luxury fashion is a way to relax or relieve stress.	.868			.622	.852	

When I am in bad mood, I may buy luxury accessories to enhance my mood.	656			.491	.859	
Uniqueness Value I would like to buy creative sustainable luxury products or use them creatively as a way of telling people I am different.	.648	2.191	11.531	.622	.852	0.749
When a luxury product I own becomes popular among the general population, I begin to use it less.	.841			.480	.856	
I often seek out information about new products and brands (ie. Sustainable ones) without relying on the opinion of others.	.777			.421	.858	
Social Value Purchasing sustainable luxury products can give social approval .	.801	1.772	9.326	.546	.856	.893
Purchasing sustainable luxury products would make a good impression on other people.	.897			.554	.856	
Purchasing sustainable luxury products would improve the way I am perceived (eg: others would believe I am a sustainable person).	.854			.561	.855	
Value for money I purchase luxury fashion brands only when they are reasonably priced.	.878	1.553	8.176	.567	.852	.930
Sustainable luxury products I buy must be value for money.	.844			.522	.850	
Contextual Factor	.682	1.192	6.276	.529	.854.	.803

.if there is enough publicity, i would purchase sustainable luxury.					
If the neighbors or families have purchased the environment-friendly luxury products, I will also want to purchase the same products	.753			.574	.853.
If there is government subsidy, I am willing to purchase environment-friendly luxury products, despite of their higher prices.	.741			.513	852
If there exists certain government, legal and regulatory requirements, I will change my consumption style towards environment-friendly products to confirm them.	.725			.611	.848

Source: Author's analysis.

4.3.2 Descriptive Analysis

Descriptive research is designed to describe specific marketing phenomena based on exploratory research results (Malhotra et al., 2006). The frequency distributions were conducted on the data of gender, age, education background, marital status, occupation, annual family income, monthly personal spending and current city.

The total valid number of valid respondents is **935** among 1,037 total respondents. The key respondents' details of age and gender differences are shown in Table 4.9: 621 of respondents were female (66.4%) and 314 were males (33.6%). The gender characteristics were consistent with many researchers that female have a higher purchase intention of luxury than their male counterparts (Stokburger-Sauer and Teichmann, 2013). And more

women tend to practice purchase sustainable fashion products (Cho et al., 2015). The majority of respondents were young adults aged between 18-25 years old, comprising almost half of all the respondents (45.2%). The respondent group aged between 26 and 30 years accounted for 24 percent of the sample, followed by 13.6 percent of the age group between 31 to 35 years old. The fourth group is people aged between 36 and 40, accounting for 6.0 percent of the sample. These four age groups in total accounted for 89.8% to the overall sample age groups. This finding is consistent with prior luxury studies in China that the majority of luxury consumers are young adults aged between 18 to 40 years old (Chen and Kim, 2013).

Thus, this study also identified the gender and age difference in potential sustainable luxury consumers.

Table 4.9 Gender and age Characteristics of Respondents

Gender/Age	Number	Percentage	Mean	Standard Deviation
Male	314	33.6	1.66	0.473
Female	621	66.4		
Below 18 years old	20	2.1	3.05	1.435
18 - 25	432	46.2		
26 - 30	224	24.0		
31 - 35	127	13.6		

36 - 40	56	6.0		
41-50	40	4.3		
51 - 60	22	2.4		
Above 60	14	1.5		

Source: Author's analysis.

Table 4.10 Marital Status of Respondents

Marital Status	Number of respondents	Percentage	Mean	Standard Deviation
single	676	72.3	1.49	0.833
married without child(ren)	60	6.4		
married with child(ren)	195	20.9		
divorced	4	4		

Source: Authors' analysis.

As most of the respondents were young adults, the single respondents took up 72.3% while 20.9% were married with child(ren). Only 6.4% of them married without child(ren) and 4 of sample got divorced (Table 4.10).

The respondents were mostly well educated; 90.6% of sample has undergraduate education level or higher. Specifically, 562 respondents were doing undergraduate study (60.1%), 227 had master degree (24.3%) and 54 had doctor degree or above (5.8%). This is in line with Kong and Ko (2017)'s findings that Chinese consumers are more highly educated about environmental problems and tend to be more motivated to be involved into sustainable fashion consumption (Table 4.11).

Table 4.11 Education Background

Education Background	Number of respondents	Percentage	Mean	Standard Deviation
High school or below	42	4.5	3.23	0.829
Junior College	46	4.9		
undergraduate	562	60.1		
Master	227	24.3		
Doctor or above	54	5.8		
Others	4	.4		

Source: Author's analysis.

With regards to career, the results show that the majority of respondents (348) are students (37.2%) followed by employee in private enterprise (173, 18.5%). Teachers and CEOs were the third and fourth largest groups in this sample, with 9.9% and 8.1% of the overall sample respectively. Employees in state enterprise occupied the similar percentage with CEOs, with 7.8%. In contrast, only 2.2 percent of the sample was not currently working, 1.0 percent of them were retired and 1.1 percent of them were house wives (Table 4.12).

Table 4.12 Career Characteristics of Respondents

Career	Number of respondents	Percentage	Mean	Standard Deviation
Teacher	93	9.9	5.00	2.467
CEO	76	8.1		
Employee in private enterprise	173	18.5		
Employee in state enterprise	59	6.3		
Employee in public institutions	73	7.8		
Self-employees	67	7.2		
Students	348	37.2		
Farmer	2	.2		
Retired	9	1.0		

House wife	11	1.2		
Others	24	2.6		

Source: Author's analysis.

In addition, the characteristics of annual household income, personal living fees and cities were identified. Table 4.13 shows the annual household income. Only one fourth of the total respondents have annual family incomes less than 79,000 in RMB (20.2%), 9.5% of them with 49,000 yuan or less. By contrast, 62.7% of the sample has annual household income of 138,001 or more.

Among the samples, the most households (18.6%) have annual income between 197,001 and 297,000 yuan. 169 respondents have 390,000 yuan or more income per year (18.1%), while 160 respondents (17.1%) have annual household income between 79,001 and 138,000 yuan. The percentage of the total respondents with less than 8,000 yuan monthly living fees is 86.6%, but they would still purchase luxury products with much more money. These findings further supported the idea that the new luxury spending is largely due to the explosion of upper-middle-class.

Cervellon and Shammass (2013a) believed sustainability is perceived by consumers as a complementary model to luxury, especially among the wealthy.

Table 4.13 Annual Household Income

Annual Household Income	Number of respondents	Percentage	Mean	Standard Deviation
Below 49,000	89	9.5	4.26	1.901
49,001-79,000	100	10.7		
79,001-138,000	160	17.1		
138,001-197,000	147	15.7		
197,001-297,000	174	18.6		
297,001-390,000	96	10.3		
above 390,000	169	18.1		

Source: Author's analysis.

Personal monthly spending (Table 4.14) of 0-2000 yuan dominated the monthly spending level, with 259 respondents. The percentage of participants' living fees per month less than 5000 yuan is 74.4%, reflecting the consumption level of basic living fees were low in China. Only 2.3% of the respondents have 20,000 yuan or more monthly living fees.

Table 4.14 Monthly Expenditure

Monthly Spending	Number of respondents	Percentage	Mean	Standard Deviation
0-2,000	259	27.7	2.75	1.725
2,001-3,000	222	23.7		
3,001-5,000	215	23.0		
5,001-8,000	114	12.2		
8,001-10,000	51	5.5		
10,000-15,000	35	3.7		
15,001-20,000	18	1.9		
20,000-30,000	9	1.0		
Above 30,000	12	1.3		

Source: Author's analysis.

Respondents are from different parts of China. The cities are divided into first-tier city, new first-tier city, second-tier city, third-tier city, fourth-tier city and others¹¹⁹.

More than half of the luxury consumers (52.7%) from this study were consumers in the first-tier and new first-tier cities of China. Respondents from the first-tier cities, including Beijing, Shanghai, Guangzhou and Shenzhen, represented the 27.7% of the total. The percentage of respondents from the new first-tier cities, including 15 cities of China, was 24.8%. In accordance with the increasing consumption power of the middle class, respondents from the second-tier city (15.7%) and third-tier city (15.8%) tend to have strong intention to buy sustainable luxury fashion items, with that being true of one third of the total

119 City Rankings, 2020. accessed on 30 May 2021. <https://www.maigoo.com/news/594143.html>

respondents. Only 9.2% and 6.7% of respondents were consumers from the four-tier and other cities(fifth-tier).

Table 4.15 Current City and Hometown

Current city	Frequency	Percent	Cumulative Percent	Mean	Standard Deviation
First-tier city	259	27.7	27.7	2.74	1.557
New first-tier city	232	24.8	52.5		
Second-tier city	147	15.7	68.2		
Third-tier city	148	15.8	84.1		
Four-tier city	86	9.2	93.3		
Others	63	6.7	100.0		
Hometown	Frequency	Percent	Cumulative Percent		
First-tier city	81	8.7	8.7	3.58	1.362
New first-tier city	146	15.6	24.3		
Second-tier city	165	17.6	41.9		
Third-tier city	298	31.9	73.8		
Four-tier city	186	19.9	93.7		
Others	59	6.3	100.0		

Source: Author's analysis.

On the other hand, the proportions of respondents' hometown were different. Only 8.7 % respondents were native to Beijing, Shanghai, Guangzhou and Shenzhen, while the rest were employees or students in the first-tier city. Similarly, only 15.6% and 17.6% of respondents came from the new first-tier city and second-tier city, showing that these people would like to choose big cities to study or work. The majority of the respondents were originally from the third-tier city and four-tier city (31.9% and 19.9% respectively). Only 6.3% of them came from other cities (fifth-tier cities).

Table 4.16 shows the mean and standard deviation of all the respondents' profiles. We can see clearly from the table about the maximum and minimum of each measure and understand their profiles in detail.

Table 4.16 Mean and Standard Deviation of the Respondents' Profiles

	Gender	Age	Family Income	Personal monthly spending	Educational Background	Career	Marital Status	Current City	Hometown
Mean	1.66	3.05	4.26	2.75	3.23	5.00	1.49	2.74	3.58
Standard Deviation	.473	1.435	1.901	1.725	.829	2.467	.833	1.557	1.362
Minimum	1	1	1	1	1	1	1	1	1
Maximum	2	8	7	9	6	11	4	6	6

Source: Author's analysis.

4.3.2.1 Descriptive analysis of sustainable lifestyle

The last part of respondents profile is regarding to their lifestyles. The table shows the minimum score, maximum score, mean score and standard deviation for the variables. Four items relating to sustainable lifestyle especially on fashion have been explored. The descriptive analysis result indicated the mean value of all the measures of sustainable lifestyle were more than the average value of 3 (Table 4.17). Specifically, respondents showed high call for the protection of wild animals and most of them will definitely not use fashion items made from wild animal furs (Mean=4.42, SD=0.863). "It is my responsibility to control desire of excessive purchase for the sake of future generation retained" had the second largest mean value (Mean=4.12, SD= 0.891), indicating respondents care about the future generation and they would like to control their purchase behaviour especially for the impulsive or excessive buying in order to save for the future. Similarly, respondents also showed their positive attitude on donating of recycle old clothes, shoes, etc that in good condition (Mean=4.05, SD=0.985). However, the item of "I repair my belongs to increase its life time" with the lowest mean level (Mean=3.77, SD=1.054), indicating there is a great potential for this part to be improved.

Table 4.17 Descriptive Statistics of Lifestyles

Descriptive Statistics of lifestyles					
	N	Minimum	Maximum	Mean	Std. Deviation
I respect the earth. I won't wear clothes or use bags made from wild animal furs.	935	1	5	4.42	.863
I would donate or recycle old clothes, shoes, etc that in good condition.	935	1	5	4.05	.985
I repair my belongings (e.g. shoe, handbags) to increase its life time.	935	1	5	3.77	1.054
It is my responsibility to control desire of excessive purchase for the sake of future generation retained.	935	1	5	4.12	.891

Source: Author's analysis.

The result (Table 4.18) shows that a majority of respondents (75.2%) directly concede that they are environmentalists. This findings is consistent with the previous studies that Chinese consumers show high awareness of the sustainable development(Henninger et al., 2017).

Table 4.18 Frequency analysis of environmentalist

	Frequency	Percentage	Minimum	Maximum	Mean	Std
Totally Not	3	.3	1	5	3.98	0.752
Not	14	1.5	1	5		
Neutral	215	23.0	1	5		
Yes	473	50.6	1	5		
Totally yes	230	24.6	1	5		

Source: Author's analysis.

The question regarding to shopping channels is shown below. The majority of respondents would purchase luxury fashion online from official websites. This is due to the

fast growing of electronic business in China in recent decades. Similarly, most respondents would like to purchase in retail stores as they worry about buying counterfeits from other channels. Daigou is another popular channel for them to choose luxury fashion items. Compared with shopping when travelling domestically, more respondents would purchase luxury fashion items when they travel abroad. As the interviewer showed, the price would be cheaper and value for money superior if they buy the same luxury fashion item in other countries. Another reason is that the new fashion items could only be bought in foreign countries. However, although consumers' sustainable awareness was high, most of respondents would not buy second hand fashion clothes such as from second hand retailers or online App. They worried about the quality and health.

Despite the growing popularity of e-commerce in China, department stores still dominate the distribution of luxury goods (Gazzola et al., 2017).

Table 4.19 Channels

Valid number /percentage	Official websites	National retailer or shopping center	Travelling inbound	Travelling outbound	Daigou	Second hand retailer	Second hand APP	Other channel
839/100%	535/63.8%	517/61.6%	108/12.9%	250/30.0%	404/48.2%	40/4.8%	51/6.1%	25/3.0%

Source: Author's analysis.

Demographic differences

According to the independent one sample t-test by SPSS, the result showed that there

is a significant difference between males and females in terms of sustainable lifestyle. In general, more females have sustainable lifestyle than males. To be specific, females with mean value of 4.28 would not use luxury fashion products with wild animal furs, compared with a mean value of 3.88 of males ($p=0.000$). Similarly, the analysis of the other three items including the “reduce, reuse or recycle” of luxury fashion items also indicated the same results, with the mean value of females higher than that of males.

With regards to the age differences of sustainable lifestyle, as the age groups are divided into five, one way ANOVA analysis was adopted. The findings indicate that the aging people (age above 60) were the most stable age group with sustainable lifestyle, with all the mean values above 4.0. In terms of animal protection, all the age groups showed their sustainable lifestyle with mean values above 4.0, especially the respondents' age between 26 to 30 years old. The second question is related to recycling clothes or donating, and apart from the aging population (age above 60 with mean value of 4.79), respondents age 41-50 showed the highest mean value of 4.30. This suggested that the aging people would like to donate or recycle clothes or shoes. However, the middle aged of 31-35 year olds showed the lowest mean value of 3.91. The third question is “ I repair my belongings (e.g. shoe, handbags) to increase its life time.” Results showed this is the least important sustainable lifestyle that respondents rated least important with the mean value lower than 4.0 for all age groups, especially the middle age of 31-35 years old. The fourth question is about controlling of excessive consumption, this finding is interesting, as young people aged 18-25 showed similar mean value of middle aged of 41-50 (4.14 and 4.18 respectively). The last question is about whether consumers' are environmentalists in general, respondents of middle age (41-50) demonstrated the highest mean value of 4.18, followed by the older people (mean = 4.14). However, the middle aged group of 31-35, had the lowest mean value of 3.80, suggesting this age group had great potential to improve their sustainable lifestyles.

Table 4.20 Gender differences of sustainable lifestyle

	Male (314)	Female (621)	T value	P value
CF1	3.88±1.007	4.28±0.726	-6.257	0.000
CF2	3.39±1.140	3.67±0.915	-3.821	0.000
CF3	3.80±1.122	4.07±0.842	-3.762	0.000
CF4	4.06±0.934	4.23±0.715	-2.909	0.004
Environmentalist	3.87±0.789	4.03±0.727	-2.938	0.003

Note: CF, Contextual Factor. Source: Author's analysis.

Table 4.21 Age Difference with Sustainable Lifestlyes

	18-25	26-30	31-35	36-40	41-50	51-60	Above 60	F	Sig.
SL1	4.44±0.80	4.54±.77	4.30±0.98	4.27±0.92	4.38±0.87	4.09±1.19	4.07±1.39	2.099	0.041
SL2	4.02±0.92	4.10±0.95	3.91±1.09	4.07±1.25	4.30±1.02	4.00±1.31	4.79±0.426	2.110	0.040
SL3	3.80±1.00	3.85±1.05	3.52±1.15	3.84±1.075	3.75±1.214	3.55±1.335	4.57±0.514	2.902	0.005
SL4	4.14±0.85	4.10±0.89	4.07±0.99	4.09±0.92	4.18±0.78	4.27±0.94	4.71±0.47	2.526	0.014
Envrionmental	4.00±0.72	4.03±0.702	3.80±0.780	3.91±0.67	4.18±0.844	3.91±1.23	4.14±0.663	2.132	0.038

Note: SL, Sustainable Lifestyle.

Source: Authors' analysis.

4.3.2.2 Descriptive analysis of main variables

In this study, the main research questions are as follows:

- (1). what are the driving values (hedonic value, uniqueness value, social value and value for money) of consuming sustainable luxury fashion?
- (2) What other factors can influence consumers' attitude toward sustainable luxury?
- (3) What's the relationship between attitude and intention in the context of sustainable luxury consumption?

The table 4.22 shows the minimum score, maximum score, mean score and standard

deviation for the variables. In total, 15 items were adopted to measure the HV, UV, SV and VM. The mean scores of all the items were positive (more than average 3). The item “Sustainable luxury products I buy must be value for money.” had the highest mean score (Mean=4.33, SD=0.747), followed by “Sustainable luxury products I buy must be reasonably priced.”(Mean =4.27, SD=0.984), indicating the value for money is the most significant value. Apart from that, item “If there exists certain government, legal and regulatory requirements, I will change my consumption style towards environment-friendly products to confirm them.” also showed high mean score of 4.17, demonstrating the importance of government, legal and regulatory requirements. However, the item “When I am in bad mood, I may buy luxury accessories to enhance my mood.” had the lowest mean score (Mean =3.21, SD= 1.104).

Table 4.22 Beliefs about Purchasing Sustainable Luxury Fashion

Value perceptions	Minimum	Maximum	Mean	Standard Deviation
If there is enough publicity, i would purchase sustainable luxury.	1	5	4.14	.852
If people around me have purchased the environment-friendly luxury products, I will also want to purchase the same products.	1	5	3.58	1.004
If there is government subsidy, I am willing to purchase environment-friendly luxury products, despite of their higher prices.	1	5	3.98	.953
If there exists certain government, legal and regulatory requirements, I will change my consumption style towards environment-friendly products to confirm them.	1	5	4.17	.799
I feel personally happy when purchasing for sustainable luxury fashion items.	1	5	3.84	.869
Buying sustainable luxury fashion is a way to relax or relieve stress.	1	5	3.67	.947
When I am in bad mood, I may buy luxury accessories to enhance my mood.	1	5	3.21	1.104
I would like to buy creative sustainable luxury products or use them creatively as a way of telling people I am different.	1	5	3.77	.942

When a luxury product I own becomes popular among the general population, I begin to use it less.	1	5	3.59	1.039
I often seek out information about new products and brands (ie. Sustainable ones) without relying on the opinion of others.	1	5	3.69	1.078
Purchasing sustainable luxury products can give social approval .	1	5	3.35	.958
Purchasing sustainable luxury products would make a good impression on other people.	1	5	3.44	.974
Purchasing sustainable luxury products would improve the way I am perceived (eg: others would believe I am a sustainable person).	1	5	3.33	.984
Sustainable luxury products I buy must be reasonably priced.	1	5	4.27	.747
Sustainable luxury products I buy must be value for money.	1	5	4.33	.758

Source: Author's analysis.

4.3.3.3 Descriptive analysis of attitude and intention

In this study, three items were used to measure the attitude toward sustainable luxury by 5-point likert scale as shown in table 4.23. The means of them are 4.04, 3.99, 3.92 respectively, indicating the general positive attitude toward sustainable luxury fashion.

Table 4.23 Description of attitude

Attitude	Minimum	Maximum	Mean	Standard Deviation
Purchasing sustainable luxury I feel good.	1	5	4.04	.747
Purchasing sustainable luxury I feel beneficial	1	5	3.99	.797
I have positive attitude toward sustainable luxury rather than negative.	1	5	3.92	.847

Source: Author's analysis.

Intention in this study was measured by three items including personal choice, recommendation to friends and the tendency of using in future. Each was measured by a 5-likert scale and the result is shown in table. The mean score of 'choosing less environmentally hazardous substances' was highest at 4.31, indicating respondents high intention to purchase sustainable luxury when providing the information. The mean score of 'recommending friends to buy sustainable luxury' and 'using of environmental friendly luxury products' are both also high at 3.99. The finding indicates the possible purchase behavioural intention on sustainable luxury.

Table 4.24 Description of intention

Intention	Minimum	Maximum	Mean	Standard Deviation
Given a choice between two substitute products, I intend to choose the one having less environmentally hazardous substances in future.	1	5	4.31	.726
I will always recommend that my friends buy sustainable luxury products.	1	5	3.99	.843
Given that environment-friendly products are readily available, I predict that I would use them in future.	1	5	3.39	1.003

Source: Author's analysis.

Demographic differences of attitude and intention:

(1) Gender Difference

The gender difference on the attitude is significant as the Table 4.25 shows ($p < 0.001$). Females had a more positive attitude than male counterparts, with average mean value of 4.08 compared with 3.78 of male counterparts. Specifically, the mean values of three items for females (4.12, 4.09 and 4.04) were all higher than the means for the males (3.87, 3.80 and 3.67) and all significant at $p < 0.001$ level. Similarly, the intention also showed similar results. The females in general had the higher mean value of 3.99 than that of male (3.72) and statistically significant at $p < 0.01$ level.

Table 4.25 Gender Difference of Attitude

	Male (314)	Female (621)	T value	P value
Attitude1	3.87±0.87	4.12±0.66	-4.493	0.000
Attitude2	3.80±0.88	4.09±0.73	-5.063	0.000
Attitude3	3.67±0.98	4.04±0.75	-5.932	0.000
Attitude (Mean)	3.78±0.82	4.08±0.51	-4.822	0.000

Source: Author's analysis.

Table 4.26 Gender Difference on Intention

	Male (314)	Female (621)	T value	P value
Intention1	4.17±0.81	4.39±0.66	-4.155	0.000
Intention2	3.75±0.95	4.12±0.75	-6.097	0.000
Intention3	3.24±1.11	3.74±0.94	-3.080	0.002
Intention(Mean)	3.72±0.76	3.99±0.62	-5.512	0.000

Source: Author's analysis.

(2) Age Difference:

There is also significant difference among different age groups in terms of intention. For sustainable luxury fashion consumption, the greatest intention is among the people with aged 36-40, with a mean value of 4.02, and the reason may be that they have accumulated

money for luxury item and to some extent with social status. The aging people (above 60) indicated they have the least intention to purchase sustainable luxury fashion.

Table 4.27 Age Difference on Intention

	18-25	26-30	31-35	36-40	41-50	51-60	Above 60	F	Sig.
I1	4.35±0.70	4.36±0.66	4.22±0.76	4.27±0.78	4.30±0.92	3.95±1.13	3.93±0.92	1.988	0.054
I2	4.05±0.83	4.01±0.78	3.96±0.75	4.11±0.85	4.13±0.88	3.41±1.33	3.29±1.14	4.835	0.000
I3	3.38±0.99	3.41±0.98	3.45±0.98	3.68±0.99	3.33±0.83	3.27±1.31	2.64±1.50	2.176	0.034
Mean	3.93±0.67	3.93±0.62	3.87±0.64	4.02±0.68	3.92±0.70	3.54±1.13	3.29±1.11	3.441	0.001

Note: I refers to Intention. Source: Author's analysis.

(3) Annual Household Income

According to the result (Table 4.28), respondents with average annual household income of 138001-197000 and 197000-297000 yuan had the highest purchase intention on sustainable luxury fashion, with mean value of 4.01 and 3.96. The second largest percentage is the respondents with annual household income of above 390,000 (Mean =3.91), and this finding is novel. It does not mean that the richer, the more intention respondents would like to purchase sustainable luxury fashion. Instead, the group with household income with 79001-138000 (Mean=3.88) showed the similar purchase intention with the richest respondents. On the other hand, the respondents with the lowest household income had the lowest purchase intention (Mean=3.61).

Table 4.28 Average Household Income Difference of Intention

	Below 49,000	49,000-79,000	79,001-138,000	138,001-197,000	197,001-297,000	297,001-390,000	Above 390,000	t	p
I1	4.09±0.90	4.40±0.77	4.37±0.65	4.39±0.65	4.39±0.64	4.29±0.81	4.19±0.74	3.267	.003
I2	3.65±0.97	4.09±0.74	3.96±0.80	4.12±0.73	4.06±0.90	4.03±0.76	3.96±0.902	3.593	.002
I3	3.09±0.90	3.38±1.02	3.34±1.01	3.52±0.89	3.41±0.98	3.22±1.08	3.57±0.98	3.313	.003
I4	3.61±0.90	3.96±0.64	3.88±0.63	4.01±0.61	3.96±0.68	3.85±0.69	3.91±0.70	3.802	.001

Note: I refers to Intention. Source: Author's analysis.

(4) Education Background

As for education background (Table 4.29), it is noted that the higher the education level, the higher intention respondents have. Specifically, the education level of high school or below showed the lowest mean value of intention at 3.37, while the intention increased with the education background. The highest mean for intention was respondents with doctoral level or above (3.98).

Table 4.29 Intention Differences of Education Background.

	High School or below	Junior College	Undergraduate	Master	Doctor or above	F	Sig.
Intention1	4.12±0.70	4.33±0.70	4.34±0.73	4.33±0.716	4.20±0.737	1.989	0.078
Intention2	3.26±0.91	4.09±0.784	4.03±0.82	4.02±0.84	4.07±0.82	7.284	0.000
Intention3	2.74±1.08	3.22±0.917	3.41±1.00	3.44±0.98	3.65±0.96	4.791	0.000
Intention4	3.37±0.73	3.88±0.56	3.92±0.68	3.93±0.66	3.98±0.72	5.822	0.000

Source: Author's analysis.

(5) The Current City

The new first-tier cities and second-tier city showed the greatest purchase intention, with average mean value of 4.00 and 3.95 respectively. The second largest mean value was the first-tier city (Mean=3.92) while the third-tier city also showed potential growing power of purchase intention, with mean value of 3.83, which was close to the first-tier city. However, the purchase intention of other cities should not be neglected as they also showed similar levels of purchase intention, with mean value of 3.76 of four-tier city and 3.71 of others.

Table 4.30: Intention Differences of Respondents' Current Cities

	First-tier city	New first-tier city	Second-tier city	Third-tier city	Four-tier city	Others	F	Sig.
Intention1	4.31±0.69	4.43±0.71	4.40±0.65	4.26±0.87	4.19±0.64	4.02±0.77	4.471	0.000

Intention2	4.05±0,81	4.06±0.80	4.03±0.79	3.91±0.88	3.85±0.99	3.83±0.93	1.896	0.093
Intention3	3.40±0.95	3.50±1.09	3.41±0.99	3.31±0.97	3.24±1.04	3.29±0.91	1.270	0.275
Intention	3.92±0.64	4.00±0.67	3.95±0.62	3.83±0.76	3.76±0.75	3.71±0.69	3.234	0.007

Source: Author's analysis.

Descriptive analysis of willingness to pay higher price

Descriptive analysis of willingness to pay higher price was achieved by frequency analysis. The questions were divided into nine parts, asking for how much higher price would consumers accept : “1” means “I will not purchase if the price is higher”, 2 means “I will purchase if the price is no higher than 5%” “3” means “I will purchase if the price is higher at 5%-9% level, “4” means “I will purchase if the price is higher at 10%-15% level”, “5” means “I will purchase if the price is higher at 16%-20% level” and 6,7,8, 9 mean that the respondents would purchase if the price is higher at 21%-25%, 26%-30%, 31%-40% and 41%-50% level respectively. Results showed that the majority of consumers would not purchase sustainable alternatives if the price were higher than 9% (78.1%). The percentage of respondents who would pay 10-15% higher price for sustainable luxury fashion was 13.2% while only 4.3 % of respondents can accept the 20%-50% higher price because of their concern about the environment.

Table 4.31 Willingness to Pay for Higher Price

How much higher of the price of sustainable luxury would you accept?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I won't purchase if the price is higher	224	24.0	24.0	24.0
	below 5%	284	30.4	30.4	54.3
	5-9%	222	23.7	23.7	78.1
	10-15%	123	13.2	13.2	91.2
	16-20%	42	4.5	4.5	95.7
	21-25%	20	2.1	2.1	97.9
	26-30%	11	1.2	1.2	99.0
	31-40%	2	.2	.2	99.3

	41-50%	7	0.7	0.7	100.0
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Source: Author's analysis.

4.3.3 Evaluation of the Model

4.3.3.1 Reliability and Validity

First, I conducted the reliability test and the validity test to evaluate the adequacy of the measurement model. Reliability is “the extent to which a research instrument consistently has the same results if it is used in the same situation on repeated occasions” (Heale and Twycross, 2015, p66). Reliability contains stability, reproducibility, and accuracy (Krippendorff, 1980).

Strong correlations indicate high reliability, while weak correlations indicate the instrument may not be reliable. Internal consistency means a high correlation of the items of a measure (Henson, 2001). Cronbach’s α is the most commonly used to test the internal consistency of an instrument. The result is a number between 0 and 1 and the result between 0.7 and higher is considered acceptable (Bland and Altman, 1997; Panayides, 2013). In the pilot study, a reliability test has been performed by Cronbach’s α . It should be noted that for tests that consist of scales measuring different constructs, internal consistency should be assessed separately for each scale, for Internal consistency are intended to test items assumed to represent a single construct (Henson, 2001). The following formula can be used to calculate Cronbach’s α , and this could be calculated by SPSS. The result is shown in the table. As is shown in table 4.32, the internal consistency (by Cronbach’s alpha) of all items exceeded the cut-off value of 0.7 (Bland and Altman, 1997). Results show that all of the items loadings exceeded the minimum threshold value of 0.50 (Guadagnoli and Velicer, 1988), demonstrating a high level of convergent validity in the measurement model (Dunn et al., 1994),

$$\alpha = \frac{k}{k-1} * (1 - \sum \frac{S_i^2}{S_T^2})$$

Table 4.32. Reliability Test.

Variables	Item	CFA loading	Cronbach's alpha
1. If there is enough publicity, i would purchase sustainable luxury.	CF1	0.693	
2. If the neighbors or families have purchased the environment-friendly luxury products, I will also want to purchase the same products.	CF2	0.776	
	CF3	0.695	0.803
3. If there is government subsidy, I am willing to purchase environment-friendly luxury products, despite of their higher prices.			
4. If there exists certain government, legal and regulatory requirements, I will change my consumption style towards environment-friendly products to confirm them.	CF4	0.695	
5. I feel personally happy when purchasing for sustainable luxury fashion items.	HV1	0.584	
6. Buying sustainable luxury fashion is a way to relax or relieve stress.	HV2	0.860	0.750
7. When I am in bad mood, I may buy luxury accessories to enhance my mood.	HV3	0.745	
8. I would like to buy creative sustainable luxury products or use them creatively as a way of telling people I am different.	UV1	0.731	
9. When a luxury product I own becomes popular among the general population, I begin to use it less.	UV2	0.829	0.734
10. I often seek out information about new products and brands (i.e. Sustainable ones) without relying on the opinion of others.	UV3	0.546	
11. Purchasing sustainable luxury products can give social approval (i.e. sustainable communities).	SV1	0.761	
12. Purchasing sustainable luxury products would make a good impression on other people.	SV2	0.887	0.834
13. Purchasing sustainable luxury products would improve the way I am perceived (eg: others would believe I am a sustainable person).	SV3	0.738	
14. Sustainable luxury products I buy must be reasonably priced.	VM1	0.871	0.877
15. Sustainable luxury products I buy must be value for money.	VM2	0.898	

Source: Author's analysis.

However, coefficient alpha test also has limitations as it may wrongly assumes that all items contribute equally to reliability, and Coefficient alpha is neither accurate nor useful in the structural equation context (Bacon et al., 1995). Researchers suggest that composite reliability is a better choice, which draws on the standardized loadings and measurement

error for each item (Peterson, 1994; Shook et al., 2004). Composite reliability (CR) refers to “an index reflecting the impact of error upon the scale” ¹²⁰(Raykov and Grayson, 2003, p143). A popular rule is that 0.70 is an acceptable threshold for composite reliability, with each indicator’s reliability above 0.50 (Fornell and Larcker, 1981).

$$CR = \frac{(\sum\lambda)^2}{(\sum\lambda)^2 + \sum(1 - \lambda^2)}$$

Table 4.33 Type of Validity

Type of validity	Description
Content validity	The extent to which a research instrument accurately measures all aspects of a construct
Construct validity	The extent to which a research instrument (or tool) measures the intended construct
Criterion validity	The extent to which a research instrument is related to other instruments that measure the same variables

Source: Heale and Twycross, 2015, p.66.

In addition, this study tests the **validity**, which is defined as “the extent to which a concept is accurately measured in a quantitative study”(Heale and Twycross, 2015(Heale and Twycross, 2015), p66). There are three types of validity: content validity, construct validity and criterion validity (table 4.33). In this study, we adopted the content validity and construct validity as this study do not have the measurement of the same variables, thus criterion validity is not needed.

Content validity, the extent to which a research instrument accurately measures all aspects of a construct, has been tested through exploratory research and pre-testing in the questionnaire. Another important validity is **construct validity**. Homogeneity, convergence,

120 Raykov T, Grayson D. A test for change of composite reliability in scale development. *Multivariate behavioural research*, 38(2), 2003. pp. 143-159.

and theory evidence are three types of evidence to demonstrate the construct validity (Heale, and Twycross, 2015). In order to establish construct validity, two validity tests should be considered: **convergent validity** and **discriminant validity**.

“**Convergent validity** is the assessment to measure the level of correlation of multiple indicators of the same construct that are in agreement”¹²¹ (p.2). The factor loading of the indicator, composite reliability (CR) and the average variance extracted (AVE) should be considered to test convergent validity (Fornell and Larcker, 1981). The value ranges from 0 to 1. “AVE value should exceed 0.50 so that it is adequate for convergent validity”.¹²²(p.2). Establishing **discriminant validity** also requires an appropriate AVE (Average Variance Extracted) analysis (Ahmad et al., 2016). “**Discriminant validity** is referring to the extent in which the construct is actually differing from one another empirically” (p. 2). The validity test and criteria are summarized in the Table 4.34.

Table 4.34 Validity Test and Criteria

Validity	Requirements
Convergent validity	This could be verified through Average Variance Extracted (AVE). The value of AVE should be greater or equal to 0.5 to achieve convergent validity.
Discriminant validity	It is achieved when the measurement model if it is free from redundant items. Another requirement is the correlation between each pair of latent exogenous construct should be less than 0.85. The square root of AVE for the construct should be higher than the correlation between the respective constructs.

Source: Ahmad, Zulkurnain, and Khairushalimi, (2016),¹²³ p3.

121 Ab Hamid M R, Sami W, Sidek M H M. Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *Journal of Physics: Conference Series*. IOP Publishing,890(1), 2017. p.12,163.

122 Ibid, p.2.

123 Ahmad, Sabri, Nazleen Nur Ain Zulkurnain, and Fatin Izzati Khairushalimi. "Assessing the validity and reliability of a measurement model in Structural Equation Modeling (SEM)." *Journal of Advances in Mathematics and Computer Science* (2016), pp. 1-8.

The AVE refers to the average amount of variance that a construct explains in its indicator variables relative to the overall variance of its indicators. The AVE for construct ξ_j is defined as follows:

$$AVE_{\xi_j} = \frac{\sum_{k=1}^{K_j} \lambda_{jk}^2}{\sum_{k=1}^{K_j} \lambda_{jk}^2 + \Theta_{jk}}$$

where λ_{jk} is the indicator loading and Θ_{jk} the error variance of the k th indicator ($k = 1, \dots, K_j$) of construct ξ_j . K_j is the number of indicators of construct ξ_j . If all the indicators are standardized (i.e., have a mean of 0 and a variance of 1). In brief, the following formula can be used to calculate AVE:

$$AVE = \frac{\sum \lambda^2}{n}$$

Where λ is the indicator loading, n is the number of indicators of construct. AVE is the most commonly used with 0.5 threshold for convergent validity.

The convergent validity values of five items (constructs) that we are testing is assessed, using the factor loading and average variance extracted (AVE). It showed all items fulfilled the guidelines of AVE which is greater than 0.5 (Fornell and Larcker, 1981) and all loading items is significant with latent variables. Each construct passes the **discriminant validity** test when the square root of the average value of the extracted (AVE) for each construct is greater than the coefficient value that measures the construct's statistical correlation with other constructs (Ahmad et al., 2016).

Similarly, the value of the cross-loading item is higher than the other constructs. The inter-construct correlation matrix (Table 4.35) between the variables demonstrated that the square root of AVE for each construct was higher than the corresponding interconstruct correlations.

The most important validity test is the assessment of **discriminant validity**, which contains latent variables with several items representing the construct (Ab Hamid et al., 2017). The discriminant validity can be evaluated by using the Fornell and Larcker criterion and Heterotrait-monotrait (HTMT) ratio of correlation. The first criterion is to assess discriminant validity using Fornell-Lacker criterion (1981). This method compares the square root of the average variance extracted (AVE) with the correlation of latent constructs and Composite reliability (CR). The average variance extracted (AVE) of all constructs is higher than the minimum threshold value of 0.5 (Hair et al., 2010) thus confirming their **convergent validity**. Table 4.35 showed that all the AVE values of latent constructs in this study were between 0.512 and 0.782. Composite reliability (CR) results range from 0.749 to 0.878, exceeding the threshold of 0.7 (Fornell and Larcker (1981)). The matrix of construct correlations, the values of CR, AVE, and the square roots of AVE, for each construct are shown in Table 4.35.

Thus, the **construct validity** of the measures have been supported (Agan et al., 2013).

Table 4.35 CR, AVE and Correlation Matrix

Latent variables	CR	AVE	CF	HV	UV	SV	VM
Contextual Factor	0.807	0.512	0.716				
Hedonic Value	0.778	0.545	0.494***	0.738			
Uniqueness Value	0.749	0.506	0.375***	0.367**	0.711		
Social Value	0.839	0.637	0.339***	0.403***	0.376***	0.798	
Value for money	0.878	0.782	0.492***	0.312***	0.300***	0.318***	0.884

Note: CR (Composite Reliability), AVE(Average Variance Extracted);

Significance of Correlations:* p < 0.050; ** p < 0.010; *** p < 0.001

Recent researchers believe that the Heterotrait-monotrait (HTMT) criterion proposed by Henseler et al. (2015) with 0.85 cutoff has a higher sensitivity and specificity in detecting discriminant validity problems compared with the AVE criterion (Ab Hamid et al., 2017; Liu et al., 2017). HTMT ratio of correlations is “the average of the heterotrait-hetero method correlations (i.e., the correlations of indicators across constructs measuring different phenomena), relative to the average of the monotrait-heteromethod correlations (i.e., the correlations of indicators within the same construct)”¹²⁴ (Henseler, Ringle and Sarstedt, 2014, p121). If the HTMT value is greater than HTMT.85 value of 0.85, there is a problem of discriminant validity.

Table 4.36 shows the results of HTMT is greater than the value of 0.85 while the one problem regarding the HTMT.85 criterion is shaded grey or the value of 0.85. The result suggests the HTMT inference does not indicate discriminant validity problems.

Table 4.36 Discriminant validity of Heterotrait-monotrait ratio of correlation

	Contextual Factor	Hedonic Value	Uniqueness Value	Social Value	Value for money
Contextual Factor					
Hedonic Value	0.539				
Uniqueness Value	0.427	0.438			
Social Value	0.366	0.452	0.416		

124 Henseler J, Dijkstra T K, Sarstedt M, et al. Common beliefs and reality about PLS: Comments on Rönkkö and Evermann. *Organizational research methods*, 17(2), 2014. pp.182-209.

Value for money	0.488	0.304	0.330	0.330	
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Note: Shaded boxes are the standard reporting format for HTMT ratios.

Source: Author's analysis.

4.3.3.2 Hypothesis Test using SEM

Structural equation modeling (SEM) is a critical and powerful analytical technique (Shook et al., 2004). SEM to some extent refers to causal modeling, simultaneous equation modeling, and analysis of covariance structures (Ullman and Bentler, 2003). Path analysis, or confirmatory factor analysis are two types of SEM. One of the advantages of using SEM is that “the relationships are free of measurement error because the error has been estimated and removed, leaving only common variance”¹²⁵ (Ullman, and Bentler, 2003, p663). Another benefit is that complex relationships among the variables can be examined (Ullman, and Bentler, 2003).

In this study, two groups of hypotheses were discussed based on the TRA model. The first group of hypotheses was associated with the structure of influencing factors and attitude. The second group of hypotheses was linked to the relationship between attitude and intention has been identified.

The measurement model is part of the model that relates the measured variables to the factors (Ullman, and Bentler, 2003). In this study, the construct's value perceptions and attitudes and the indicators of these constructs, form the measurement model. The goal of it is to “test a model, to test specific hypotheses about a model, to modify an existing model, or to test a set of related models”¹²⁶ (Ullman, and Bentler, 2003, p663).

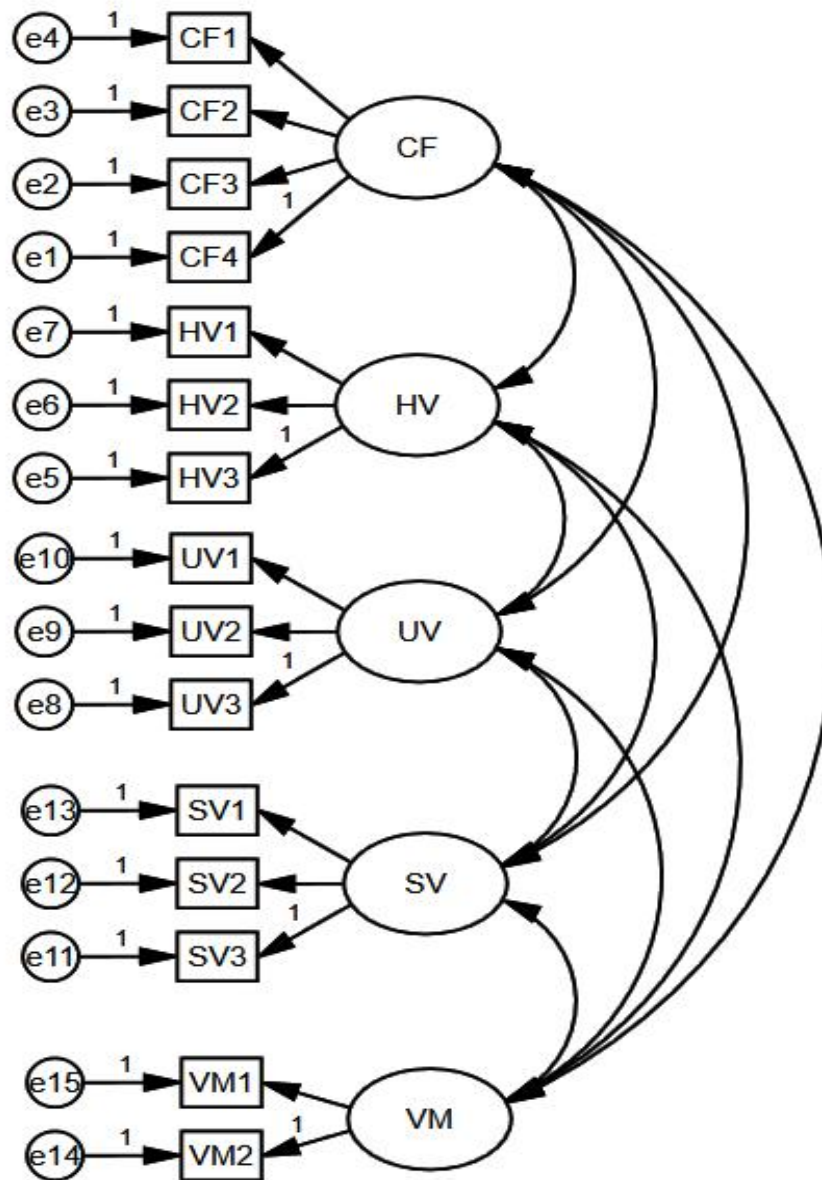
125 Ullman J B, Bentler P M. Structural equation modeling. Handbook of Psychology, Second Edition, 2012, p. 2.

126 Ibid, p.663.

CFA

The first step in a SEM analysis is specification of the model. In this part, confirmatory factor analysis (CFA) was conducted to test the measurement model. Confirmatory Factor Analysis (CFA) is a special form of factor analysis. It is employed to test whether the measure of a construct is consistent with the researcher's understanding of the nature of that construct. To examine the hypothesized relationships, the values relevant to the model were computed by AMOS 24.0.

Figure 4.2 The Measurement Model



Source: Author's analysis from AMOS 24.0.

(1) Measurement model

According to Ullman, and Bentler (2003), the measurement model is explained:

“Measured variables, also called observed variables, indicators, or manifest variables, are represented by squares or rectangles. Factors have two or more indicators and are also called latent variables, constructs, or unobserved variables. Factors are represented by circles or ovals in path diagrams. Relationships between variables are indicated by lines;

lack of a line connecting variables implies that no direct relationship has been hypothesized. Lines have either one or two arrows. A line with one arrow represents a hypothesized direct relationship between two variables, and the variable with the arrow pointing to it is the DV. . A line with a two-headed arrow indicates an unanalyzed relationship, simply a covariance between the two variables with no implied direction of effect (p.661).”¹²⁷.

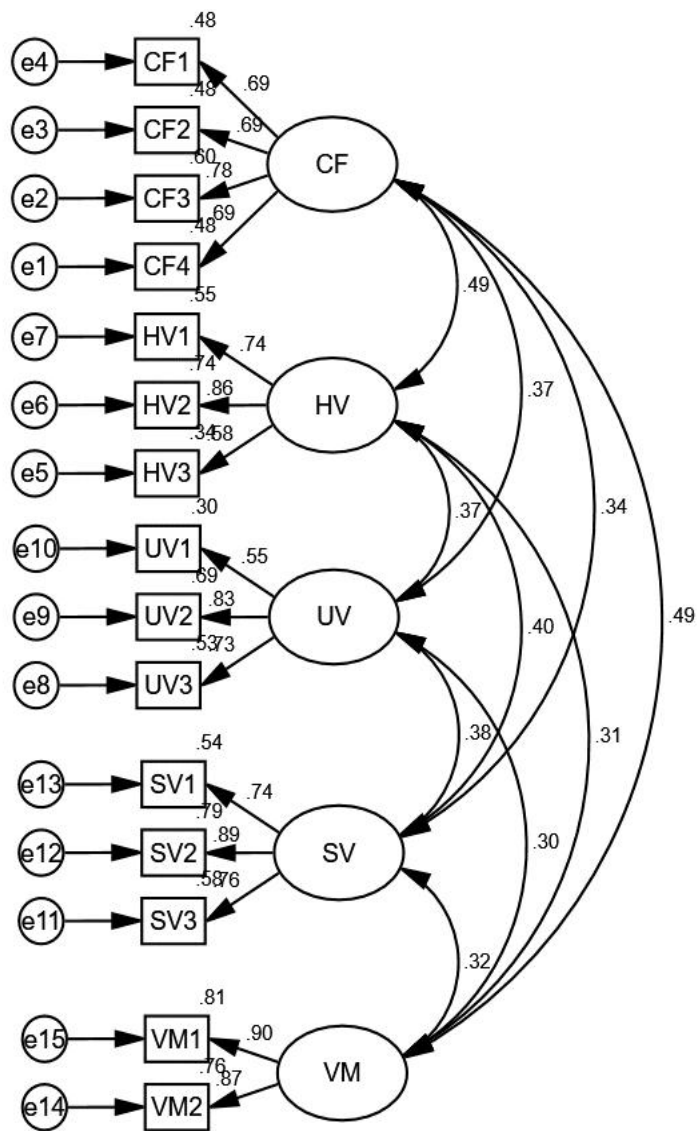
In the model of this study, CF1, CF2, CF3 and CF4 in rectangles are the measured variables or observed variables of Contextual Factors (in oval). HV denotes hedonic value factor (in rectangle). Similarly, UV refers to Uniqueness Value, SV means Social Value and VM is the Value for money. It should be noted that all the measured variables have arrows labeled “e” pointing to them, indicating the residue error. There is always residue error as nothing is predicted perfectly¹²⁸ (Ullman, and Bentler, 2003, p663). In total, the number of observed variables are 15, while the number of the unobserved variables are 20, including CF, e1, e2, e3, e4, HV, e5, e6, e7, UV, e8, e9, e10, SV, e11, e12, e13, VM, e14 and e15.

Chi-square is the most popular fit measure (Shook (Shook et al., 2004), Christopher L., et al 2004). In this model, the Chi-square (χ^2) is 325.333, with p level at 0.000 (Figure 4.3). The χ^2/df value of 4.067 is smaller than the recommended 5. However, the χ^2 test is not only sensitive to sample size, but is also sensitive to the violation of the multivariate normality assumption, it is only recommended with a sample of moderate sizes (e.g., 100 to 200) but not fit for the larger sample (Tabachnick and Fidell, 1996) . Due to these limitations, several ‘comparative fit’ indices have emerged and have been adopted, including rules of thumb and not significance tests, in determining acceptable fit levels (Shook et al., 2004)

Figure 4.3 Analysis Result of Measurement Model

127 Ibid, p.661.

128 Ibid, p.663.



Standardized estimates

Default model

$\chi^2=325.333(p=.000)$; $df=80$; $\chi^2/df=4.067$

GFI=.957; AGFI=.935

NFI=.942; IFI=.956; TLI=.942; CFI=.956; RFI=.924

RMSEA=.057

Source: Author's analysis using AMOS 24.0.

This study adopted multiple criteria to evaluate goodness-to-fit in SEM, and Table 4.37 shows the model fitness measure of the measurement model. The model fit indices indicate

the measurement model has a good fit, as the indexes all meet the recommend threshold level. A rule of thumb is that the SRMR should be less than 0.05 for a good fit (Hu and Bentler, 1999), whereas values smaller than 0.10 may be interpreted as acceptable. The result shows a standardized residual mean root (SRMR) of 0.0486 (below 0.08) showing good fitness. The goodness-of-fit index (GFI) was 0.957 (higher than the cut-off value of 0.9), indicating good fit. TLI (0.942) and Comparative Fit Index (CFI=0.956) are preferred because they are relatively robust to sample size effects and tend to yield consistent results at different sample sizes (Sun, 2005). The NFI value of 0.942(>0.9), IFI of 0.956 all imply a good fit to the data. RFI The Root Mean Square Error of Approximation (RMSEA) value was 0.057, and being less than 0.08 indicates good fit(Hair et al., 2010). Therefore,

Table 4.37 Fitness Measure for the Models

Index	SRMR	GFI	NFI	IFI	TLI	CFI	RFI	RMSEA
Value	0.0486	0.957	0.942	0.956	0.942	0.956	0.924	0.057
Recommended Value	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	<0.08

Source: author's analysis with recommended value referring to Hair et al, 2013.

Table 4.38 shows the standard regression weight, S.E. in the measurement model. The measurement model showed all the paths were statistically significant at $p < 0.001$ level.

Table 4.38 Standard Estimates of Paths in the Measurement Model

Paths	Standard Regression Weight	S.E.	P
-------	----------------------------	------	---

	Paths		Standard Regression Weight	S.E.	P
Q6_1	<---	CF	.695	.028	***
Q6_2	<---	CF	.695	.033	***
Q6_3	<---	CF	.776	.031	***
Q6_4	<---	CF	.693	.026	***
Q7_1	<---	HV	.745	.028	***
Q7_2	<---	HV	.860	.031	***
Q7_3	<---	HV	.584	.036	***
Q7_4	<---	UV	.546	.031	***
Q7_5	<---	UV	.829	.034	***
Q7_6	<---	UV	.731	.035	***
Q8_1	<---	SV	.738	.031	***
Q8_3	<---	SV	.887	.032	***
Q8_4	<---	SV	.761	.032	***
Q9_1	<---	VM	.898	.024	***
Q9_2	<---	VM	.871	.025	***

Note: SE = standard error, CR = critical ratio.

Source: Author's analysis.

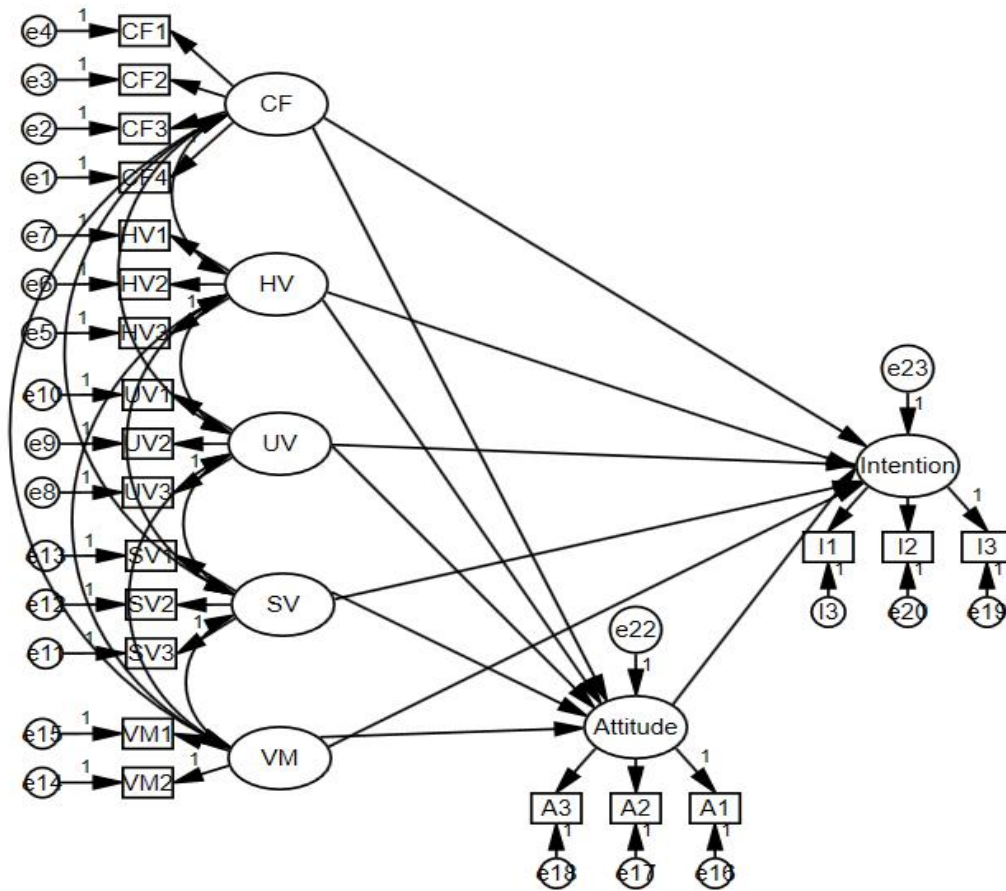
In summary, the variables of value perceptions (hedonic value, uniqueness value, social value and value for money) and contextual factors fit the model very well. Therefore, the hypothesized five influencing factors were confirmed in the SEM.

(2) Structural Model

One significant research question is to examine the relationship between consumers' attitude and behaviour. This study adopted the theory of reasoned action (TRA) to examine the contributions of attitude toward the intention of purchasing sustainable luxury fashion.

As the measurement model provided an acceptable goodness of fit measures, the next step was to test the structural model. The conceptual model was empirically tested following the acceptable fit from the CFA. The structural model tested the hypotheses by employing the multiple fit measures. The measurement model analysis indicated an excellent model fit and validates the empirical investigation on the conceptual model. Figure 4.4 shows the structural model.

Figure 4.4 The Initial Structural Model



Note: CF(Contextual Factor), HV(Hedonic Value), UV(Uniqueness Value), SV(Social Value), VM(Value for money).

Source: Author's analysis.

The minimum was achieved with an Chi-square at 705.844, and the degrees of freedom is 173 > 0 ($p < 0.001$). The normed chi-square ($\chi^2/df = 4.080$) was smaller than the recommended threshold 5. Thus, the model is identifiable. The fit indices of the structural model met the required threshold expectations (table 4.39), with Standardized residual mean root (SRMR) of 0.0523 (< 0.08). The goodness of fit index (GFI) was 0.933, more than the cut-off value of 0.90, indicating good fit. Other measures also showed good fit, including: NFI=0.921, IFI=0.939, TLI=0.926, CFI=0.939, RFI=0.904 and RMSEA =0.057. All the values were in line with the suggested range (Hair et al., 2010).

Table 4.39 Fitness Measure for the Models

Index	SRMR	GFI	NFI	IFI	TLI	CFI	RFI	RMSEA
Value	0.0523	0.933	0.921	0.939	0.926	0.939	0.904	0.057
Recommended Value	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	<0.08

Source: author's analysis with recommended value referring to Hair et al, 2013.

As shown in Table 4.40, contextual factor and hedonic value, uniqueness value were found to be positively related to sustainable luxury fashion attitude, although social value showed a relative weak positive relationship with sustainable luxury fashion attitude ($\beta = 0.071$, $p=0.012 <0.05$). Looking at the standard estimates (β value) between various factors and attitude, contextual factor is the strongest predictor of attitudes ($\beta = 0.431$, $p < 0.001$), followed by hedonic value ($\beta = 0.176$, $p < .001$), value for money ($\beta = 0.166$, $p < 0.001$), and uniqueness value ($\beta = 0.089$, $p < 0.001$ respectively).

With regards to the relationship between influencing factors and intention, social value and value for money ($\beta=0.071$, $p<0.05$; $\beta=0.071$, $p<0.05$) showed positive influence on purchase intention. However, hedonic value and uniqueness value were not related to consumers' purchase intention on sustainable luxury fashion, with t values of $-0.277 < 1.96$ ($p=0.782 > 0.1$) and 0.591 ($p=0.555 > 0.1$) respectively.

Besides, attitude also showed a positive and very strong relationship with intention ($\beta = 0.831$, $p < 0.001$). Therefore, H1, H2, H3, H5, H7, H8, H9, H10, H11 were supported while H4 and H6 were rejected.

Table 4.40 Path-coefficient Assessment and Hypothesis Testing

Hypothesis	Path	Standardized estimates	S.E.	T value	p	Hypothesis

H1	CF→Attitude	0.431	0.048	9.883	***	Supported
H2	CF→Intention	0.286	0.054	5.481	***	Supported
H3	HV→Attitude	0.176	0.038	4.612	***	Supported
H4	HV→Intention	-0.010	0.036	-0.277	0.782	Not Supported
H5	UV→Attitude	0.089	0.028	3.320	0.001	Supported
H6	UV→Intention	0.016	0.027	0.591	0.555	Not supported
H7	SV→Attitude	0.071	0.028	2.992	0.012	Supported
H8	SV→Intention	0.071	0.028	2.572	0.010	Supported
H9	VM→Attitude	0.166	0.033	5.641	***	Supported
H10	VM→Intention	0.106	0.033	3.270	0.001	Supported
H11	Attitude →Intention	0.490	0.054	9.157	***	Supported

Note: CF(Contextual Factor), HV(Hedonic Value), UV(Uniqueness Value),
SV(Social Value), VM(Value for money).

Source: author's analysis with recommended value referring to Hair et al, 2013.

Mediation Effect

Bootstrapping methods were adopted to examine the mediation effect (Preacher and Hayes 2008).

Table 4.41 Assessment for Direct Effect

Path	Direct Effect	Biased Correlated 95%CI	Percentile 95%CI	P value	Significance
------	---------------	----------------------------	------------------	---------	--------------

CF→ Intention	0.275	0.162-0.399	0.160-0.397	0.001	Significant
HV→ Intention	-0.011	-0.109-0.088	-0.108-0.089	0.811	Not significant
UV→ Intention	0.022	-0.064-0.104	-0.062-0.106	0.681	Not significant
SV→ Intention	0.091	0.013-0.181	0.010-0.173	0.022	significant
VM→ Intention	0.120	0.016-0.224	0.014-0.222	0.019	significant

Note: CF(Contextual Factor), HV(Hedonic Value), UV(Uniqueness Value),
SV(Social Value), VM(Value for money).

Source: Author's analysis.

Results displayed in Table 4.41 indicated that indirect effect for H12, H13, H14, H15 and H16 were all supported. These hypotheses resulted in an indirect effect of $\beta=0.203$, $\beta=0.095$, $\beta=0.059$, $\beta=0.045$, and $\beta=0.092$ respectively. In addition, mediation effects were present when the 95% bootstrap confidence interval did not straddle a 0 between the upper and lower intervals (Preacher and Hayes 2008). This condition was relevant for H11 (0.041, 0.190), H12 (0.042, 0.193) and H13 (0.092, 0.253) where 0 was not straddled in between, indicating that mediation effects existed in these five hypotheses. In other words, H12, H13, H14, H15 and H16 were all supported.

Table 4.42 Hypothesis Test for Indirect Effect

Hypothesis	Relationship	Indirect effect	Biased Correlated 95%CI	Percentile 95%CI	p-value	Decision
H12	CF>Attitude>Intention	0.203	0.134-0.291	0.131-0.287	0.001	Supported
H13	HV>Attitude>Intention	0.095	0.050-0.158	0.044-0.149	0.000	Supported
H14	UV>Attitude>Intention	0.059	0.010-0.121	0.009-0.120	0.014	Supported
H15	SV>Attitude>Intention	0.045	0.096-0.093	0.005-0.192	0.026	Supported
H16	VM>Attitude>Intention	0.092	0.032-0.162	0.030-0.159	0.001	Supported

Source: Author's analysis.

Table 4.43 Mediation Effect of Consumers' Attitude

	CF	HV	UV	SV	VM	ATTITUDE
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Total effect						
Attitude	0.401	0.188	0.117	0.088	0.182	0.000
Intention	0.479	0.084	0.081	0.146	0.212	0.507
Standard direct effect						
Attitude	0.401	0.188	0.117	0.088	0.182	0.000
Intention	0.275	-0.011	0.022	0.091	0.120	0.507
Standard indirect effect						
Attitude	0.000	0.000	0.000	0.000	0.000	0.000
Intention	0.203	0.095	0.059	0.045	0.092	

Note: CF (Contextual Factor), HV(Hedonic Value), UV(Uniqueness Value),
SV(Social Value), VM(Value for money).

Source: The author's analysis.

Table 4.43 showed the mediation effect of consumers' attitude. The table reveals that the mediation effect exists according to Hair (2006), who argued that if there is difference between the values of standard direct effect and total effect. From this table, we can see that CF, HV, UV, SV and VM showed direct effect on attitude as the indirect effects of them were all zero. However, the indirect effect also exists between those influencing factors and intention with no zero value.

To further identify the mediation effect, z-values were calculated and based on the literature, the z-value of more than 1.96 means the mediation effect exists. Results show that the z-value of the indirect effects were 4.306, 3.440, 2.095, 1.970 and 2.700, with all of them indicating the significance level of indirect effect, which further supports the idea that mediation exists.

Table 4.44 Mediation Test

	Relationship	z-value (indirect estimate /standard error)	Indirect effect	Direct effect	Result
H12	CF>Attitude>Intention	4.306	Significant	Significant	Partially Mediation
H13	HV>Attitude>Intention	3.440	Significant	Not significant	Fully Mediation
H14	UV>Attitude>Intention	2.095	Significant	Not significant	Fully Mediation
H15	SV>Attitude>Intention	1.970	Significant	significant	Partially Mediation
H16	VM>Attitude>Intention	2.700	Significant	significant	Partially Mediation

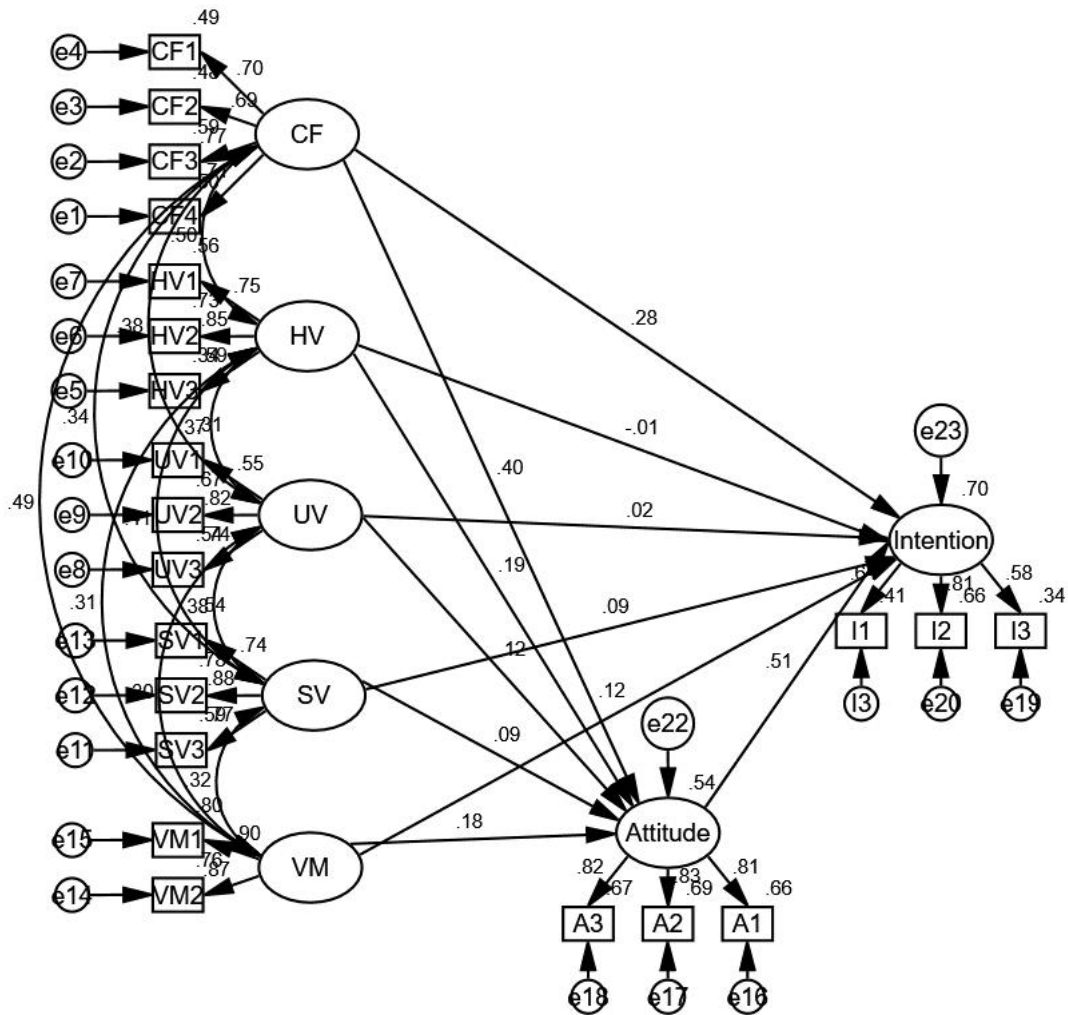
Note: CF(Contextual Factor), HV (Hedonic Value), UV (Uniqueness Value), SV (Social Value), VM (Value for money).

Source: Author's analysis.

Thus, it can be concluded that all the hypotheses of mediation (H12, H13, H14, H15, H16) were supported. The relationship between hedonic value and intention, uniqueness value and intention were both fully mediated by attitude while the others were partially mediated by attitude.

Contextual factor, hedonic value, uniqueness value, social value and value for money accounted for 54% of the variance in explaining consumer attitude. Meanwhile, consumer attitude accounted for 70% of variance in purchase intention. Hair et al. (2010) indicated that R^2 values of 0.25, 0.50 or 0.75 could be described as weak, moderate, and substantial. Hence, the R^2 scores were considered moderate in the explanatory power respectively. Hence, it can be concluded that the proposed conceptual model is supported by the data.

Figure 4.5 The modified TRA Model



Chi-square=637.797 DF=168
 Standardized estimates
 Default model
 $\chi^2=637.797$ ($p=.000$); $df=168$; $\chi^2/df=3.796$
 GFI=.939; AGFI=.917
 NFI=.929; IFI=.946; TLI=.933; CFI=.946; RFI=.911
 RMSEA=.055

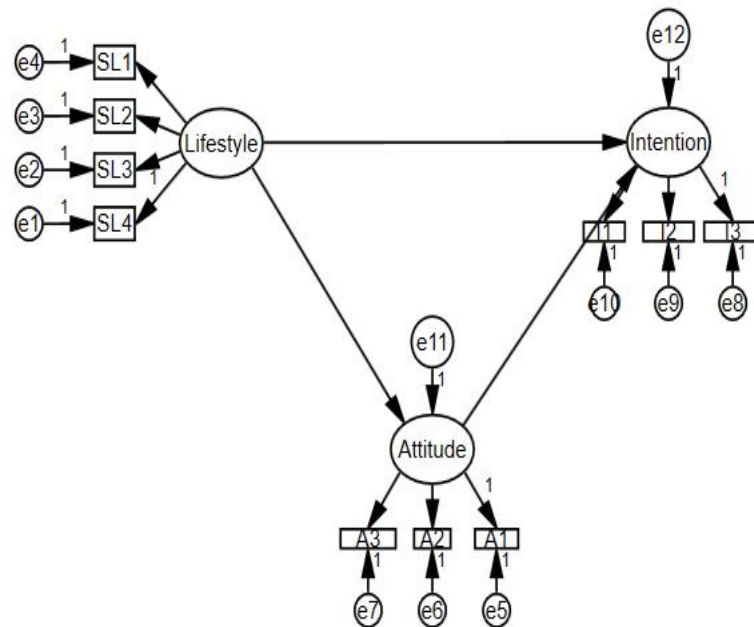
Note: CF(Contextual Factor), HV(Hedonic Value), UV(Uniqueness Value),
 SV(Social Value), VM(Value for money).

Source: Author's analysis.

Sustainable lifestyle and intention

As hypothesized, Figure 4.6 shows the model of sustainable lifestyle and purchase intention on sustainable luxury fashion goods.

Figure 4.6 The Model of Sustainable Lifestyle and Intention



Note: SL=sustainable Lifestyle; I=intention; A=attitude
Source: Author's analysis.

The model reached the minimum of Chi-square at 158.572 and the degrees of freedom of 32 > 0 ($p < 0.001$). The normed chi-square ($\chi^2/df = 4.955$) was smaller than the recommended threshold of 5.0. Thus, the model is identifiable. The fit indices of the structural model met the required threshold expectations (table 4.45), with Standardized residual mean root (SRMR) of 0.0462 (< 0.08). The goodness of fit index (GFI) was 0.968, which was more than the cut-off value of 0.90, thus indicating good fit. Other measures also show good fit, including: NFI=0.948, IFI=0.958, TLI=0.941, CFI=0.958, RFI=0.927 and RMSEA = 0.065. All the values were in line with the suggested range (Hair et al., 2010).

Table 4.45 Fitness Measure for the Models

Index	SRMR	GFI	NFI	IFI	TLI	CFI	RFI	RMSEA
Value	0.0462	0.968	0.948	0.958	0.941	0.958	0.927	0.065
Recommended Value	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	<0.08

Source: Author's analysis with referring to Hair et al. (2013).

The hypothesis of the relationship between sustainable lifestyle and intention (**H17, H18**) has been tested by the t-value and p-value. It was found that the value of t is 5.072 ($p < 0.001$), higher than the threshold value of 1.96, indicating a significant relationship between the sustainable lifestyle and intention. Similarly, the relationship between sustainable lifestyle and attitude has been identified as well, with t-value of 14.681 at the $p < 0.001$ level. Thus, hypothesis H17 and H18 were supported.

Table 4.46 Hypothesis Test of Lifestyle and Intention

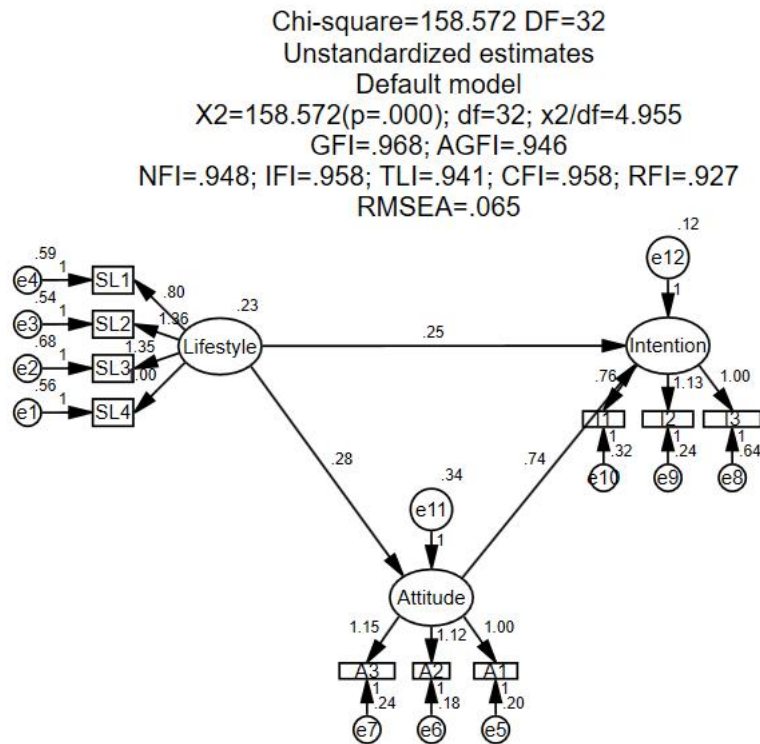
	Path	S.E.	t	Result
Attitude---Lifestyle	0.284	0.056	5.092 ***	H17 is supported
Intention---Attitude	0.744	0.051	14.681 ***	
Intention---lifestyle	0.248	0.049	5.072 ***	H18 is supported

Note: *** $p < 0.001$

Source: Author's analysis.

Mediating Effects Analysis

Figure 4.7 Mediating Effect Analysis



Note: SL=sustainable Lifestyle; I=intention; A=attitude

Source: Author's analysis.

Figure 4.7 shows the results of the mediated sustainable lifestyle model.

The path analysis indicated there is a positive influence between sustainable lifestyle and intention ($\beta = 0.25$, $p < 0.001$). The mediator test was carried out to determine the effect of sustainable consumption attitude on the relationship between the sustainable lifestyle and intention. There was a significant direct effect found between sustainable lifestyle and intention (beta coefficient = 0.229, $p = 0.000$). The total effect of lifestyles on attitude is 0.229, on intention is 0.370. The mediator exists when the direct model and the full mediation model showed the reduction of β values. From the table, it is clearly seen the path relationship between lifestyle and intention. The direct effect is 0.200 and indirect effect is 0.170, both of them showed significant level at $p < 0.001$. Therefore, the attitude is the mediator between sustainable lifestyle and intention.

Table 4.47 Assessment for Direct Effect

Path	Direct Effect	Biased 95%CI	Correlated	Percentile 95%CI	P value	Significance
Lifestyle-Attitude	0.200	0.120-0.277		0.124-0.280	0.001	Significant
	Indirect effect	Biased 95%CI	Correlated	Percentile 95%CI		
Lifestyle-Intention	0.170	0.097-0.247		0.094-0.243	0.001	significant

Source: Author's analysis.

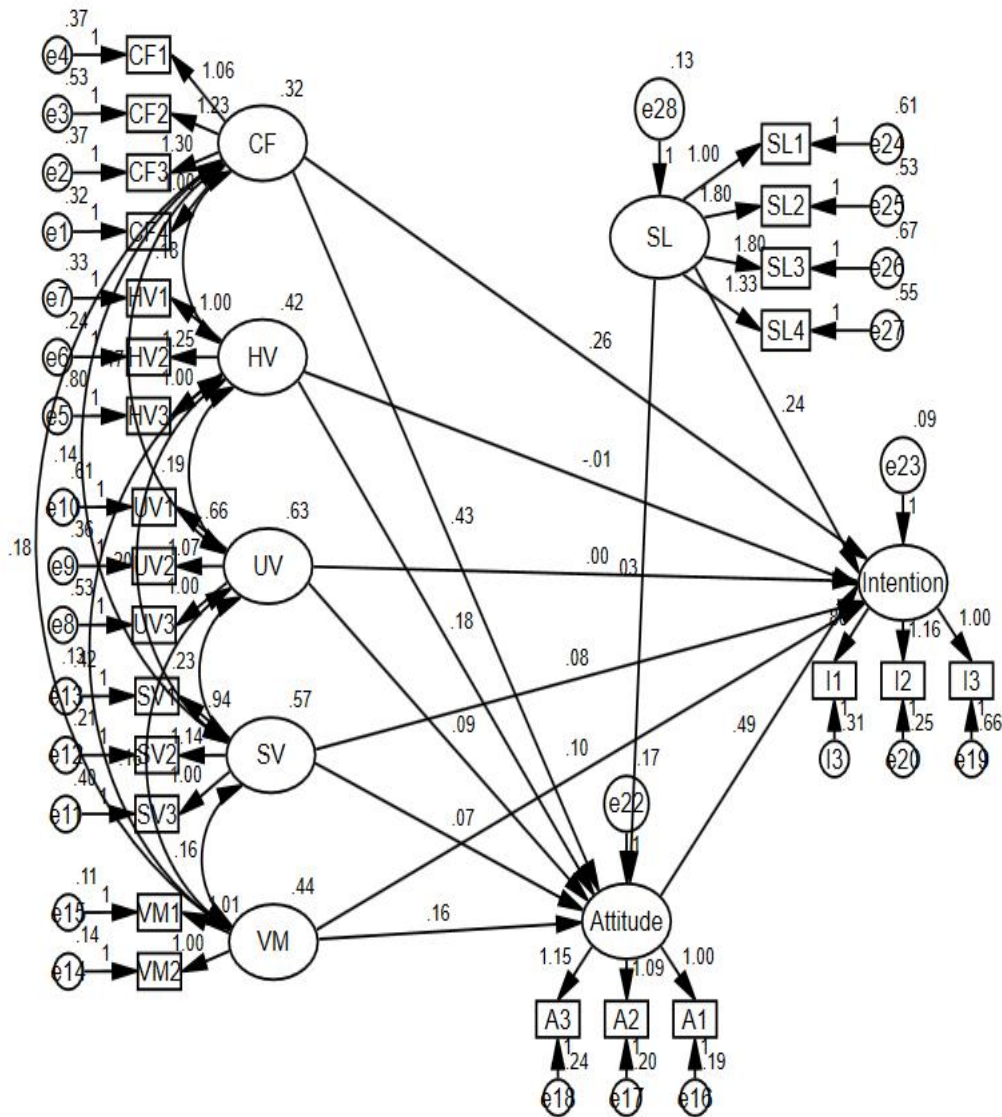
Therefore, **hypotheses 17, 18, 19** were all supported. In other words, sustainable lifestyle has a positive effect on attitude and intention of sustainable luxury fashion goods. Attitude mediates the effect between sustainable lifestyle and intention.

4.3.4 The Competing Model

The competing model has a Chi-square of 922.609 ($p < 0.001$) with 247 degrees of freedom. Normed chi-square ($X^2/df=3.735$) was less than the cut-off value of 5.0. The RMSEA value of 0.054 (< 0.07) indicated the good fitness. The GFI value of 0.927, the NFI value of 0.906, the IFI value of 0.929 and the TLI value of 0.914 all exceeded the recommended threshold value of 0.9. The CFI value of 0.929 also showed good fitness of the competing model. The overall model had a SRMR value of 0.0503, which also met the adequate fit data (Recommended value of $SRMR < 0.08$). Overall, level of R^2 (Co-efficient of determination) were subsequently assessed. The competing model explained a significant variance in attitude ($R^2 = 0.54$) and intention to purchase the sustainable luxury ($R^2 = 0.72$), which was higher than the moderate level based on Hair et al. (2010) criterion. All these

analyses indicated that the new model with the sustainable lifestyle can fit the modified TRA model; and explain consumers' purchase intention to sustainable luxury fashion goods. The result of the competing model is shown in figure 4.9.

Figure 4.8 the Result of Competing Model



Source: Author's analysis.

4.4 Chapter Summary

This chapter reported the data analysis of the pretest study and the major study of the research. In the pilot study, coefficient alpha and exploratory factor analysis were conducted to purify the constructs. Then, reliability and validity tests were performed first to further identify and delete the invalid measures, so ensuring the accuracy of the data.

The section of 4.3.2 consists of descriptive analysis, including the mean scores of each measure and standard deviation. The minimum value and maximum value are also provided for understanding the details of the profile. The relationship between sustainable lifestyle and intention has also been explored by one-way ANOVA analysis.

The main study was to adopt the structural equation modeling to test the hypothesis in section 4.3.3. The findings indicated that contextual factor, hedonic value, uniqueness value, social value and value for money are the five determinants to predict Chinese consumers' attitude of sustainable luxury fashion goods. Attitude positively affects intention as previous literature demonstrated (Ajzen and Fishbein, 1975). Attitude is the mediator between various values and purchase intention. The implications of the results are discussed in the next chapter.

Chapter 5 Discussion and Conclusion

5.1 Introduction

This research examines the determinants of Chinese consumers' attitudes and intentions towards sustainable luxury fashion. Chapter 1 describes the research background, research problem and objectives, and thesis outline. Chapter 2 reviews the concepts presented in the literature on luxury, luxury fashion, sustainable luxury fashion, and consumer behaviour theories, providing theoretical background for this study. Then the research hypotheses are suggested on the basis of the literature and modified according to the qualitative research result. Chapter 3 discusses the mixed methodology of both qualitative and quantitative. The qualitative research is based on interviews and adopted the grounded theory while the quantitative research is based on the questionnaire survey to test the hypotheses. Then a pre-test has been conducted in Chapter 4. Reliability and validity tests were tested first before testing the hypotheses. In this chapter, profiles of respondents were reported, and the findings of structural equation modeling with the help of AMOS were provided and their academic and practical implications are demonstrated. Some limitations and future research direction are also mentioned in this chapter.

5.2 Summary of Research Findings

Presently, the research on the sustainable luxury consumption is still at the primary stage. It is important to note the lack of analysis on what factors influence sustainable behaviour on luxury fashion consumption and earlier studies have not addressed how consumers perceive different values of sustainable luxury fashion especially in the emerging markets such as China (Athwal et al., 2019). In this regard, this study takes the determinants of sustainable luxury as the research object, on the basis of the grounded theory, the theory

of perceived value scales and the theory of reasoned action, to build a model and test the relationships. It has both theoretical and practical implications.

The usefulness of attitude-intention model was assessed, but results showed that the basic model cannot explain the complex correlations between various values and purchase intentions in the context of Chinese consumers' sustainable luxury fashion consumption. Therefore, the TRA model was modified according to the results of qualitative interview and previous study. In accordance with the theory of PERVAL, this study added the value perceptions into the traditional TRA model. Considering that the contextual factor also plays a key role in sustainable consumption (Biswas and Roy, 2015), this study incorporated the contextual factor into the competing model and the usefulness of the new model was further assessed. The results indicated that the competing model got satisfactory fit indices and passed the validity and reliability tests. The findings of hypotheses testing also suggest the significant role of values and a contextual factor played in the purchasing intention of sustainable luxury fashion.

This study mainly focused the relationship between various determinants and intentions on sustainable luxury fashion. **Attitude** is the mediator in this relationship. Overall, the findings are encouraging, as the majority of the hypotheses are supported. In the process of determining purchase intention, contextual factor including publicity, peer pressure, the government subsidy, or regulations is the most significant determinant. In addition, consumers perceive various types of value in purchasing and consuming sustainable luxury products, and that have positive effects on consumers' attitude and intention. The results reveal the direct and indirect interactions between the variables in the final model and provide insights in the determinants of sustainable luxury fashion consumption.

To be specific, the findings identified **contextual factor** directly affects the intention most, followed by the sustainable lifestyle and value for money. The uniqueness value had the least effect on the intention of sustainable luxury fashion.

These findings supported that **contextual factor** is the premise of predicting behavioural intention (Steg and Vlek, 2009). In this study, **contextual factor** is the most significant factor among the five determinants that directly affect the intention to buy sustainable luxury fashion. This is contrary to Wang et al. (2014)'s findings that the contextual factors cannot explain the mechanism from attitude to intention and behaviour in China. However, their survey was carried out in rural areas where there was inadequate infrastructure, and lacked supportive environment and supply, which undermined the sustainable consumers' behaviour.

Another significant result is that **sustainable lifestyle** positively affects purchase intention. This means that consumers with sustainable lifestyle are more likely to have purchase intention for sustainable luxury products than others who live unsustainably (Middlemiss, 2008). In this study, more than half of respondents perceive sustainable lifestyle positively, which justified the judgement that choosing sustainable ways of living is in a tendency to grow. The findings indicated that consumers showed different levels of concerns about environmental issues and practices in different ways. Due to the complexity of the products available or understanding of sustainable luxury fashion, consumers share a common set of concerns with regard to socio-environmental issues (Black and Cherrier, 2010). Recent studies also showed the tendencies for individuals to act in various sustainable ways (Zakaria et al., 2019). For example, consumers would like to reduce waste (Lundblad and Davies, 2016), and to recycle clothes by passing on to their family and friends or reselling (Koch and Domina, 1997). Thus, providing more options for resale or reuse could stimulate the sustainable methods of disposing (Koch and Domina, 1997). On the other hand, sustainable consumption including actual behaviour is not an essential part of sustainable lifestyle (Cho et al., 2015). Therefore, sustainable lifestyle can stimulate intention, but it does not mean that all the sustainable practices were consumers living sustainably. All the consumer groups can behave sustainably as other values matter.

With regards to a variety of **values**, they can be seen as antecedents to behavioural

intentions, and this supported the Lundblad and Davies (2016)'s findings that the "values have a conscious presence in sustainable consumers' minds"¹²⁹. In China, consumers "linked their materialistic values positively with their environmental concern and their sustainable consumption"¹³⁰ (p.1489). However, only a small number of research have examined the relationship between different values and purchase behaviours although there is a growing interest in this area (Gilg et al., 2005).

Among the influence of various values on intention, the greatest effect was the **value for money**. This is contrary to some of the prior studies regarding to sustainable consumption that consumers with a high environmental awareness or motivation tend to be less sensitive to price (Tanner and Wölfing Kast, 2003), this study demonstrates that consumers care about the value for money and the reason may lie in the great personal benefits gained from the sustainable luxury fashion. In other words, people tend to be motivated to buy sustainable fashion due to the value for money in the long term (Lundblad and Davies, 2016). As a result, owing to the higher quality and durability of sustainable luxury fashion, sustainable consumers can meet their desire of consuming less and worth of money rather than excessive purchasing; buying less is "the best alternative for regular sustainable fashion consumers"¹³¹ (p155.).

Gilg et al. (2005) argued sustainable consumers were more likely to buy environmental credentials, rather than considering about the price. However, in the context of China, Wang et al. (2014)'s research findings summarised that "people always choose alternatives with highest benefits against lowest costs"(p12.)¹³². So in terms of price, consumers have a price

129 Lundblad, L., & Davies, I. A. "The values and motivations behind sustainable fashion consumption". *Journal of Consumer Behaviour*, 15(2), 2016. p.171.

130 Dermody, J., Hanmer-Lloyd, S., Koenig-Lewis, N., & Zhao, A. L. *Advancing sustainable consumption in the UK and China: the mediating effect of pro-environmental self-identity*. *Journal of Marketing Management*, 31(13-14), 2015. p.1489.

131 Ibid, p.155.

132 Dermody, Janine, et al. "Appraising the influence of pro-environmental self-identity on sustainable consumption buying and curtailment in emerging markets: Evidence from China and Poland." *Journal of Business Research* 86, 2018.pp.333-343.

range that is acceptable to pay for a product. If the price of sustainable luxury fashion is higher than their acceptable price range, their purchase intention would definitely be lowered (Chan and Wong, 2012).

In addition, **social value** also played a significant role in terms of sustainable purchase intention, as the literature suggested (Awuni and Du, 2016). As for luxury consumption, a number of studies have explained the importance of social value as determinants for behaviour (Ajitha and Sivakumar, 2017; Cervellon and Shammas, 2013a; Wang, 2007). In particular in China, young Chinese adults' sustainable purchasing intentions are significantly influenced by social values (social needs and self-image) (Awuni and Du, 2016). But it should be noted that adopting sustainable consumption is not about showing their social status as interviewer suggested, and this is in agreement with Lee et al. (2015)'s findings.

However, **hedonic value and uniqueness value** have no direct impact on consumers' intention to buy sustainable luxury fashion although they have strong correlations with consumers' attitudes. The findings are contrary to the previous studies which highlighted the strong positive effects of hedonic value and uniqueness value in terms of luxury consumption behaviour. As for hedonic value, this result is in line with Lundblad and Davies (2016)'s findings that consumers seek good feelings from the eco design of luxury fashion items. Consumers seek individual hedonic benefits including "comfort, individuality, looking good and various aspects of design in sustainable fashion"¹³³.

As such, in terms of general sustainable consumption, Chinese young adult consumers have intentions of purchasing sustainable products as their emotionally moral responsibility to improve the environment (Awuni and Du, 2016). Thus, consumers have positive attitudes toward sustainable consumption. The reason for the indirect relationship between hedonic value and purchase intention may be the complexity of personal values and the interference effect of other important factors on the attitude and intention in the context of sustainable

133 Lundblad, and Davies, 2016. p.150.

luxury fashion. This is also seen in terms of **uniqueness value**. While previous studies have highlighted the uniqueness value in fashion consumption, this study showed uniqueness value has no direct impact on the purchase intention on sustainable luxury fashion goods. Jain (2019a) also showed the weak effect of uniqueness value on purchase intention in India as Indian consumers heavily rely on social relationships. By contrast, the unique design of luxury fashion clothes and natural materials may satisfy consumers' uniqueness value and consumers could benefit from the notion of sustainable fashion (timeless cuts, durability and higher quality) (Lundblad and Davies, 2016). However, there exists an attitude-intention gap in this relationship (Vermeir and Verbeke, 2006). In other words, there is a strong positive relationship between uniqueness value and attitude while the relation between uniqueness value and intention is weak.

This is not hard to find in fashion consumption as Diddi et al. (2019) argued the decision-making process of sustainable consumption is complex and difficult to predict for different consumer groups. While there may be various value dimensions capturing the utility of sustainable luxury, the values are independent and have different contributions in purchasing behaviour (Gonçalves et al., 2016).

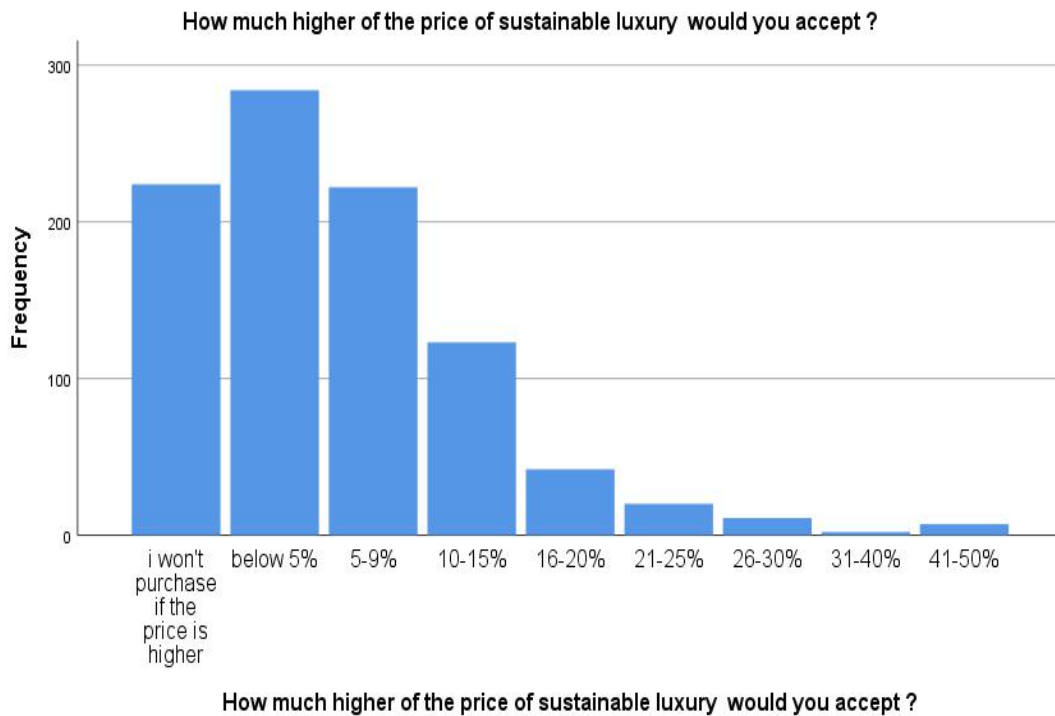
Building on the traditional TRA, this study explored the relation between **attitude and intention** in terms of sustainable luxury fashion consumption. Indeed, this study identified **attitude** has the largest direct impact (and total effect) on intention. In the domain of sustainable consumption, this finding is in line with Ceglia et al. (2015)' study that when consumers' attitude is positive, they would have more intention to purchase the sustainable items.

Willingness to pay for higher price

This study explored the willingness to pay for higher prices after testing the purchase intention. The result show the percentage of consumers (71.7%) who would like to pay higher for sustainable alternatives are less than 20%, although 24% of respondents

indicated they would not buy if the prices were higher (Figure 5.1).

Figure 5.1. Willingness to Pay for Higher Price



Source: Author's analysis.

The intention includes consumers' willingness to pay for sustainable luxury and willingness to pay higher prices for sustainable luxury (Li et al., 2012). Consumers' willingness to pay a premium price is an antecedent of purchasing intention. In order to measure consumers' willingness to pay for a premium price, it is argued that consumers' willingness to pay sustainable luxury fashion would increase their willingness to pay a higher price (Li et al., 2012). The present study found that more than half of luxury consumers would like to pay higher prices for sustainable luxury fashion compared with the non-sustainable luxury items. This means that they are ready to pay a premium price for luxury fashion items marked with sustainable labeling and the economic and ecological benefits of the fashion product (Gazzola et al., 2017).

However, according to the interview analysis, quality is the main concern about the sustainable alternatives, as the price of luxury fashion usually is very high, and adding natural or recycled materials might change the original quality or value. Paying a higher price for a sustainable luxury fashion product shows the great value of a product. Thus, this provides implications for both policy makers and industries.

5.3 Implications

At present, the research on the sustainable luxury consumption is still at the primary stage. It is important to note the lack of analysis on what factors influence sustainable behaviour on luxury consumption, and earlier studies have not addressed how consumers perceive different values of sustainable luxury, especially in an emerging market like China. In this regard, the study takes the driving factors of sustainable luxury as the research objective, based on the theory of consumption values and the theory of reasoned action, to build a model and test the relationships. It has both theoretical and practical implications.

5.3.1 Theoretical Implication

From the theoretical perspective, according to the qualitative survey, this study provides deep understanding of concept of sustainable luxury fashion from consumers' perspectives. Prior studies have not explicitly examined how sustainability is understood in the context of luxury fashion products. While the current findings show a contradiction between luxury and sustainability (Cervellon, 2013). This study provided a novel definition of sustainable luxury fashion products: luxury branded fashion products with high quality, brand equity, with strong social responsibility and design can fit customers' various tastes. This study shows that although luxury consumers tend to care about sustainable development, the environment or ethical criteria is not directly related with consumers' purchase intention. This is in

agreement with (Achabou and Dekhili, 2013)'s findings. Qu et al. (2015) also mentioned that young consumers' environmental concern cannot be seen from the luxury purchase behaviour. Consumers' are ego-centered especially when they pay more money on luxury fashion products compared with low-priced counterparts. The novel part is that consumers' care about their wellbeing including healthiness and price.

In terms of price, researchers found that in consumers' eyes, ethical products or sustainable products will always cost more than non-ethics (Davies et al., 2012). According to Mahenc (2007), green consumers are willing to pay more for a cleaner product, but when consumers cannot ascertain the environmental performance of products, the price must be distorted upward to signal the greenness of the product. On this issue, McGoldrick and Freestone (2008) found that over a wide array of products, consumers were willing to pay well over a 10% extra on average for ethical versions. In this study, 71.7% respondents would like to pay higher for sustainable alternatives with prices higher at the 5%- 20% level.

Secondly, consumers can be classified into three groups based on their sustainable lifestyle and consumption behaviour. The three consumer types identified from this study show different attitudes towards sustainable luxury fashion products. Having a deep understanding of consumer typologies and why they are shopping for luxury fashion brands provide an advantage for the industry's sustainable development in the long run. Incorporating sustainability as an integral part of the luxury brand culture could increase brand value, and potentially influence consumers' choice and increase sales(Henninger et al., 2017), which is a win-win situation.

Third, the study mainly makes contributions to the literature on sustainable marketing by highlighting how to integrate luxury consumption values (i.e. value for money, hedonic value, social value and uniqueness value) and contextual factor in an emerging market, to refine marketing theories. It proves that attitudes significantly influence purchase intention, confirming the theory of reasoned action. Prior research focused on the personal-oriented value (i.e. hedonic value) and others-oriented value (social value) as predictors to purchase

sustainable luxury (Cervellon and Shammam, 2013a; Jain, 2018). This study added the value for money, showing the significant effect on purchase behaviour, to understand the PERVAL in sustainable luxury. Besides, noting the significance of contextual factors including policy incentives, regulatory and publicity, sustainable fashion is about consumers' mindset and consumption habits through these ways.

Understanding the antecedents of sustainable consumption behaviour is essential to promote sustainable luxury fashion consumption strategies in China. The effects of **contextual factors** on sustainable behaviour in the luxury fashion section have been examined in detail from this study. This leads to an extension of existing theoretical models. The different degrees of impact of the four value perceptions (value for money, hedonic value, social value and uniqueness value) also offers support to the findings by Kapferer (1997) regarding the multi-dimensionality of the luxury construct.

Hence, this study contributes to the understanding of the theory of consumption value and the theory of reasoned action by demonstrating the need of aligning the perceived values with consumers' attitude to sustainable luxury products or brands, which leads to positive behaviour intentions in an emerging country like China.

This study also has several implications for methodology. It first adopted the grounded theory by interviewing to deep understand Chinese consumers' understanding of sustainable luxury fashion. The research framework and a data analysis scheme are designed and in-depth interviewing is used to gather information. With the help of Nvivo12, the interview data are coded and analysed to identify the influencing attitude and intention of sustainable luxury in China. A theoretical model has been constructed to show the mechanism of sustainable luxury fashion consumption. Next, based on the qualitative result and literature review, proposed hypotheses were formed. Then the selection of a population is crucial because the defining samples control the variation of survey and helps define the limits of generalizing the findings. An online survey with the help of professionals was adopted. The SEM was utilized to measure the validity and credibility of the model and

research hypotheses could also be tested by SEM technique with the help of SPSS and AMOS software. Then the test for mediation was conducted to examine the relation between influencing factor and purchase intention, influencing factor and consumer attitude, attitude and purchase intention. At last, the final model could be formed. The results of the online survey in mainland China indicated that the strongest influence on sustainable purchasing intentions comes from the contextual factor and different values.

5.3.2 Managerial Implication

The findings also provide practical implications for policy makers and industries to develop appropriate sustainable strategies. The framework in this research is expected to assist public relationship actioners in the luxury fashion industry in designing and implementing marketing strategies for doing business in China.

This study intended to explore what determine sustainable luxury fashion consumption and to what extent these factors affect the purchasing intention. Specifically, this study clarifies the contribution of contextual factor and the PERVAL to sustainable purchasing intentions among Chinese luxury consumers. Since the strong positive effect of **contextual factors** on sustainable behaviour (Wang et al., 2014) in the luxury fashion section has been examined from this study, it would be necessary for government to take their initiatives to educate consumers through media, education system or labeling, and for luxury companies to upgrade their products' certification levels and setting sustainable goals as priorities (Shao, 2019).

Government or policies play a significant role as a moral guide or supervisor in consumers' purchase intentions. This is in line with Jackson and Michaelis (2003)'s findings that government has been guided consumers' behaviour for a long time from different strategies. Government persuades consumers to buy through media, the education system or labeling. On the other hand, government also has power to deter consumption by taxes or

criminal law (Jackson and Michaelis, 2003). In China, consumers are required to be educated through the government, both at the central and local level, from unsustainable consumption to sustainable behaviours (Wang et al., 2014). The Chinese government has recognised the crucial needs and is trying to motivate consumers with some policies implemented locally, such as the priority of balance between economic development and the ecological conservation¹³⁴. Also, providing more options for resell or reuse could stimulate the sustainable methods of disposing (Koch and Domina, 1997). However, the efforts should be put more on the call for different fields especially for the consumption of sustainable fashion, which is the second largest industry polluter. Furthermore, China and Europe have more trade channels due to the Belt and Road Initiative, so effective methods of international standards should be established (Shao, 2019).

As for various perceived values, value for money was found to play as the most significant role in shaping sustainable luxury attitude and purchase intention. Thus, marketing strategies of sustainable luxury should focus on cost-benefit analysis as consumers need to feel that they are getting utmost value by engaging in sustainable luxury fashion consumption (Diddi et al., 2019). The reason may be partly from the great purchasing power from the young generation and the explosion of upper-middle class, thus generating a great chance for luxury brands to make new sustainable image instead of focusing on their historical heritage of brands. Besides, marketing campaigns should also focus on promoting sustainable luxury with social value that meet consumers' social approval which is consistent with literature (Chattalas and Shukla, 2015; Vigneron and Johnson, 2004).

However, this study found hedonic value and uniqueness value is not significant predictor of luxury consumers' sustainable purchasing intention despite the positive link between hedonic value and attitude. Thus, strategies focusing on emotional needs of

134 accessed on July 5, 2020, <http://www.drc.gov.cn/xsyzcfx/20200428/4-4-2900561.htm>. (in Chinese).

consumers may not be very effective at promoting sustainable practices.

In general, while developing strategies for the China market, luxury companies should understand consumers' different dimensions of value to develop more sophisticated sustainable products that consumers want to enjoy (Voss et al., 2003; Wiedmann et al., 2007) , meet their social approval (Chattalas and Shukla, 2015; Vigneron and Johnson, 2004), and fix a price that can reflect the value for money (Aw et al., 2021).

Additionally, it should be noted that the luxury fashion industries have not fully embraced the notion of sustainability or paid enough attention to identify the determinants of sustainable fashion purchasing intention for consumers, although the importance of gearing consumers toward sustainable fashion consumption have been recognised (Cho et al., 2015). Consumers are not motivated enough and there is an issue regarding how to communicate sustainability (Kapferer, 2010). This study found that consumers have not gained enough information regarding to sustainable fashion luxury brands and not exposed to the information for making decisions (Young et al., 2010). Han et al. (2017) also pointed out that one reason that consumers' unwillingness to pay sustainable products is the lack of social awareness about the value of sustainable fashion products, which justified the need to provide sufficient knowledge about sustainable values added on luxury fashion. As Luxury brand image positively affect sustainable marketing activities (Park et al., 2010),and regular consumers of sustainable fashion seek long term benefits of switching to sustainable luxury brands (Lundblad and Davies, 2016), there is an emergency need for the luxury industry to manufacture sustainable fashion by using "terms such as eco-fashion or fair trade fashion in brand communication."¹³⁵ and upgrade their products' certification levels and setting sustainable goals as priorities (Shao, 2019).

Simultaneously, the quality, durability and wearability of sustainable luxury fashion products should be highlighted, as these aspects are essential for success of luxury brands

135 Lunblad and Davies 2016, p.160.

to convey their sustainable initiative to consumers (Kapferer, 2010). Although consumers' sustainable awareness is high, they do not practice it as literature revealed that they put unique style, quality and durability as their purchase criteria instead of environmental problems when buying luxury fashion items (Ki and Kim, 2016a). These are selling points that could deliver sustainable information to attract new consumers through the process that product values could be reflected (Lundblad and Davies, 2016). In particular, for young consumers, marketing strategies that focus on durability and reparability of apparel might drive their purchase in sustainable items (Diddi et al., 2019). This study also pointed out consumers care about the health benefit brought from natural material matters when choosing sustainable luxury fashion. This corresponds to Henninger et al. (2017)'s suggestion that incorporating wellbeing such as good for skin and health as an integral part of luxury fashion could potentially promote product sales.

Thus, marketing campaigns should focus on these product values (unique style, timeless cuts, health benefit of natural material, long-lasting garment) of sustainable luxury fashion in order to increase the number of consumers. The price suggested is no higher than 20% compared with traditional luxury fashion. Besides, providing more options for resale or reuse, like collecting products for recycling or returned packaging waste can also satisfy consumers' psychological needs (Chan and Wong, 2012). Brands can invest to provide additional services such as repair, recycling apparel and innovative product design and assortment to increase the life cycle of clothing.

In addition, this study also found that consumers choose luxury fashion from different channels. The luxury retailer played a significant role in practicing sustainability as this is the main channel for luxury purchasing indicated from this study, as consumers are more likely to trust and purchase sustainable luxury fashion products in large retailers (Young et al., 2010). This study is in line with Mc Kinsey's report that most Chinese consumers tend to buy luxury fashion from domestic physical stores to overseas or Daigou alternatives¹³⁶. It also

136 Mckinsey, 2019, p.7.

supported that post '80s or '90s consumers are more influenced to purchase offline by a more personalised experience. From the consumers' perspective, Chinese consumers changing purchase behaviour tend to affect the distribution of luxury products and despite the growing popularity of e-commerce in China, department stores still dominate the distribution of luxury goods (Gazzola et al., 2017). Therefore, luxury brands can use offline services such as providing information about sustainable fashion, promoting the benefits of new sustainable alternatives, and raising consumer's confidence level in sustainable fashion, to stimulate fashion consumer's purchase decision (Chan and Wong, 2012).

As for consumers, the new sustainable luxury fashion should not neglect the increasing purchasing power from the young generation and the explosion of upper-middle class. According to the McKinsey China Luxury Report in 2019, "only 13 percent of post-'80s/'90s luxury spenders said they grew up in a family familiar with the finer things in life, while half of post-'90s, and 31 percent of post-'80s consumers, only made their first luxury purchase in the last year"¹³⁷.(p7). This study further supported this, thus generating a chance for luxury brands to make new sustainable images instead of focusing on their historical heritage of brands. Marketing strategies of sustainable luxury fashion should focus on cost-benefit analysis as these consumers need to feel that they are getting utmost value by engaging in sustainable luxury fashion consumption (Diddi et al., 2019). When targeting the very wealthy consumers, they prefer personalised service and frequently buy the latest and most popular luxury products (Gazzola et al., 2017). In this regard, brands can change from the design, material to make sure the latest fashion to practice sustainability.

In summary, consumers' high level of awareness of sustainability should be further put into practice with the help of both government and luxury industries, as consumers face great information burdens and costs as the literature suggested (Deng, 2015). It also should be noted the significance of values or factors that affect the transition. Thus, policy makers and luxury industries should pay more attention to providing sustainable fashion products

137 McKinsey, 2019. 7

and convey information through different channels regarding to the values associated with sustainable luxury fashion. Also, government plays a key role in shaping consumers choices by providing help such as incentives or sustainable labels, as these contextual factors significantly affect their purchase behaviour.

5.4 Limitation and Future Research

The previous sections discussed the findings and implications of this study, and the following section is the limitation and future research.

There are a few limitations to this research. The perceived values are multi-dimensional, including uniqueness value, hedonic value, social value, and value for money (Jain, 2019a), but this study only tests the four values. Future studies should conduct multi-dimensional models and investigate the role of psychographic characteristics, such as epistemic value or other personal values (Biswas and Roy, 2015; Sheth et al., 1991). These characteristics have been proposed to influence preferences and behavioural differences among Chinese consumers (Chen and Ye, 2017). Future researchers may explore the presence of mediating variable(s) that may lead to the transformation of attitude and intention into an actual purchase of sustainable luxury brands or products.

Another limitation of the study may be the selection of samples located only in mainland China although China is emerging in luxury consumption and Chinese consumers' sustainable awareness is also increasing (Henninger et al., 2017), limiting the generalizability of our findings. Future studies should conduct an empirical verification of our conceptual model across a wider array of nations. It would be quite interesting to empirically examine the effect of different levels of Hofstede's dimensions of individualism and collectivism, uncertainty avoidance and power distance from culture perspectives on the relative impact of value perceptions respectively.

It also should be noted the context of this study is purchasing luxury fashion items. Although it is difficult to make clear cut delineation as to what is a luxury fashion item or what is not, clothing and bags tend to be more in fashion oriented than others in regular luxury purchasing. Future study could extend the research area to general fashion items and promote consumers' sustainable behaviour in a range of product categories, such as cars and other luxury items or luxury services.

Finally, this research only considered purchase intention of sustainable luxury fashion products, actual behaviour can be measured to determine whether buyers are also owners of sustainable luxury fashion products, and consumer behaviours like post purchasing, intention-behaviour gap, sharing and swapping can also contribute to sustainable consumption. These behaviours should be further studied in the context of Asian countries to provide a more comprehensive view of sustainable consumption.

5.5 Chapter Summary

The final chapter summarized the findings and conclusion that addressed the research questions. The theoretical and practical implications are also provided in this chapter, along with limitation and further study directions.

The research examines the influencing factors of consumers' intention to purchase sustainable luxury fashion products. Both qualitative and quantitative research has been done to add to the understanding of sustainable luxury fashion and data was collected from luxury consumers, which was the target population in this study. Building on the theory of value consumption and TRA, the findings reveal the interactions between different factors and consumers' purchase intention on sustainable luxury fashion goods. The framework in this study allows scholars and practitioners to get a holistic understanding of Chinese consumers' behaviour in sustainable luxury fashion consumption. These findings will help both the policy makers and luxury industries to make tailored strategies targeting consumers

in China.

Appendix

1. Qualitative Questions

Interview Questionnaire

Date

Name

Gender

Age

Education level

Occupation

Work Experience

Household annual Income

What is the main source of your living expenses?

Parents Part-time job Full-time job Relatives/Friends Sponsors/Scholarship
Others _____(Please specify)

Expenses per month

1. What do you think is luxury products? What kind of characteristics do you think luxury goods own?
2. What kind of luxury products do you like most or usually purchase? Please list three by frequency.
3. What have you bought most recently and why did you buy it? How much is it? Where did you buy (travel abroad or mainland of China) ?

Why do you buy luxury goods? What do you think the difference when you buy luxury goods in the UK, JAPAN and mainland of China?

4. Why do you buy luxury goods? What do you think the difference when you buy luxury goods in the UK, JAPAN and mainland of China?
5. Did you buy luxury products impulsively? Why you bought it impulsively? Do you regret buying which kind of luxury products? Why?

6. What factors influence you to buy luxury products? Please list all the factors and rank them.

- a) Need for uniqueness
- b) Need for conformity
- c) Hedonic motivation
- d) Utilitarian motivation
- e) Good quality
- f) Face
- g) Social needs
- h) Reflect success
- i) Others _____

7. Do you often care about the environment protection? Will you consider sustainability when you buy goods? Will you use your own bags instead of plastic bags in the supermarket? Do you think you are responsible to protect the environment?
 8. Do you consider sustainable development when purchasing luxury products(such as over packaging, using animal furs, green materials), do you know such information
 9. Do you know luxury industry may 1) employ cheap labor 2) kill animals such as ...to produce handbags 3) destroy unsold products instead of sell them cheaper 4) most European luxury products are made in China and other developing countries 5) over package
-
10. Will you pay more for green luxury products? How much higher are you willing to pay at most? 10%?20?30%? 50%?
 11. Purchasing green luxury products can improve my personal value (e.g. uniqueness value, social value)?
 12. Purchasing green luxury products can gain acceptance among peers or friends
 13. Do you think luxury industry should be exemplary in terms of sustainability?
 14. Do you think luxury brands and sustainability are paradox? Or do you think luxury brands should take social responsibility and encourage green consumption?
 15. Given a choice between two substitute luxury products, I intend to choose the one having less environmentally hazardous substances in future.
 16. While purchasing the luxury goods in future, I will consider whether it is environmental-friendly.
 17. Given that environment-friendly products are readily available, I predict that I would use them in future.

2. Questionnaire Survey

Survey of Chinese consumers purchase intention on sustainable luxury fashion products

I am a student of Kagoshima International University. As a part of my dissertation, I am required to do a survey about consumers purchase behaviour on sustainable luxury fashion products. This would take about 3

minutes. The results of the study will be used only for academic purposes and will not be used for any commercial purpose. Your responses will be treated with absolute anonymity and confidentiality. I will be very grateful if you could spend a few minutes to participate in this survey.

Before doing the survey, please read the concepts of luxury fashion and sustainable luxury first.

(1) Luxury Fashion Brands:

Although the price is much higher than the cost value of the product, the middle class can afford the price of high-end clothes, bags, shoes, etc., such as Louis Vuitton, Chanel, Gucci, Hermes, Burberry, Burberry, Givenchy, Versace, Prada, Prada, Armani, Valentino, Fendi, CK, Lafeigmo, Ferragamo, Coach, Koch, D & G, MK, Kenzo, HUGO BOSS, EZ, Celine, Miu, Flora, Kawaguchi Bowling, etc., similar to but not limited to the above high-end fashion brands.

(2) Sustainable Luxury Fashion Products:

It refers to the fashion luxury brands in which the enterprise takes the earth and consumer health as the first place, adopts environmental protection materials and production process, and strives to realize environmental protection.

There are three sections of the questionnaire.

Please indicate the degree of your disagreement /agreement with each statement, by circling one of the five alternatives (where 1 = strongly disagree, 3= neither agree nor disagree, and 5 = strongly agree)

Construct	Items	Strongly disagree—strongly agree				
Environmental lifestyles	1. I respect the earth. I won't wear clothes or use bags made from wild animal furs.	1	2	3	4	5
	2. I would donate or recycle old clothes, shoes, etc that in good condition.					
	3. I repair my belongings (e.g. shoe, handbags) to increase its life time.					
	4. It is my responsibility to control desire of excessive purchase for the sake of future generation Retained.					
	5. It is important to me that the products I use don't harm the environment.					
	6. I don't care about the environment, as long the product is usable for me (Negative)					
Contextual factor	7. There are few green luxury brands in markets and I can't choose eco-friendly products for alternative.	1	2	3	4	5

	<p>8. Among the people around me, there are few people to buy environment-friendly luxury products or understand my choice to environment-friendly products.</p> <p>9. If people around me have purchased the environment-friendly luxury products, I will also want to purchase the same products.</p> <p>10. If there is government subsidy, I am willing to purchase environment-friendly luxury products, despite of their higher prices.</p> <p>11. If there exists certain government, legal and regulatory requirements, I will change my consumption style towards environment-friendly products to confirm them.</p>					
Hedonic value	12. I feel personally happy when purchasing for sustainable luxury fashion items.	1	2	3	4	5
	13. Buying sustainable luxury fashion is a way to relax or relieve stress.	1	2	3	4	5
	14. When I am in bad mood, I may buy luxury accessories to enhance my mood.	1	2	3	4	5
Uniqueness Value	15. The sustainable luxury fashion that I like best is the ones that express my individuality.	1	2	3	4	5
	16. I would like to buy creative sustainable luxury products or use them creatively as a way of telling people I am different.	1	2	3	4	5
	17. When a luxury product I own becomes popular among the general population, I begin to use it less.	1	2	3	4	5
	18. I often seek out information about new products and brands (ie. Sustainable ones) without relying on the opinion of others.	1	2	3	4	5
	19. Purchasing sustainable luxury fashion would satisfy my personal needs rather than others.	1	2	3	4	5
Social Value	24. Purchasing sustainable luxury products can give social approval (i.e. sustainable communities).	1	2	3	4	5
	25. I am more influenced by others' recommendations (like parents, friends or social networks) when choosing luxury items.	1	2	3	4	5
	26. Purchasing sustainable luxury products would make a good	1	2	3	4	5

	impression on other people.					
	27. Purchasing sustainable luxury products would improve the way I am perceived (eg: others would believe I am a sustainable person).	1	2	3	4	5
	28. In general, I am more easily affected by others to buy luxury products.	1	2	3	4	5
Value for money	29. Sustainable luxury products I buy must be reasonably priced.	1	2	3	4	5
	30. Sustainable luxury products I buy must be value for money.	1	2	3	4	5
	31. Sustainable luxury products I buy should have economic benefit (ie. Cost per wear is low) .	1	2	3	4	5
Attitude	32. Purchasing sustainable luxury I feel good.	1	2	3	4	5
	33. Purchasing sustainable luxury I feel beneficial					
	34. I have positive attitude toward sustainable luxury rather than negative.					
Intention	35. Given a choice between two substitute products, I intend to choose the one having less environmentally hazardous substances in future.	1	2	3	4	5
	36. I will always recommend that my friends buy sustainable luxury products.	1	2	3	4	5
	37. Given that environment-friendly products are readily available, I predict that I would use them in future.	1	2	3	4	5
	38. Of the 10 times you buy luxury clothes at, how many times would you select the sustainable fashion brand?	1	2	3	4	5
Intention to buy premium price	39. I am willing to pay more money to buy environment-friendly luxury products.	1	2	3	4	5
	40. How much higher are you willing to pay at most for sustainable luxury products? 10-50%	Not buying if higher, <5%, 5-9%, 10-15%, 21-25%, 26-30%, 31-40%, 41-50%				

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