Psychological analysis into consumer luxury shopping behavior in China during and after the Covid-19 pandemic

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Submitted to Professor Ivo Ponocny

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AFFIDAVIT

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Abstract

In a sample of 200 Chinese consumers of luxury brands, this research explores the associations between shopping behavior in luxury products and consumers' psychological traits and changes thereof before and after the pandemic. An online questionnaire with approx. 40 questions assessed social and growth needs, social status motivation and delay of gratification as well as demographic variables and shopping behavior in respondents from Shanghai. The scores were retrospectively collected for the time before the pandemic and the time after the lockdowns were lifted. Major findings included a confirmation of similar shopping patterns of males and females, a significant drop in reported shopping after the lockdowns were lifted regardless of age or gender, and a decreased shopping behavior in the youngest age group (up to 29 years old) compared to all other ages in non-pandemic times. Moreover, high social status motivation was associated with less brand shopping, while for respondents with high delay of gratification scores more shopping was reported before but not after the pandemic. Implications for marketing luxury products include dealing with a cautious consumer clientele that behaves differently depending on psychological traits. Consumers who had suffered severe economic or emotional impact or those with high levels of delay of gratification are unlikely to go on shopping frenzies any time soon after restrictions end. More longitudinal data, intra-individual follow-up and objective shopping data collection are the core suggestions for further research in this topic.

Key words: China, luxury goods, consumer behavior, social status motivation, social needs, growth needs, delay of gratification, shopping

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Table of Content

Table of Tables

Table of Figures

1. Introduction

The novel Corona virus began its devastating journey at the end of 2019 in Wuhan, China. While neighboring Asian countries – experienced in dealing with local outbreaks of other viruses over the last three decades – quickly entered strict safety protocols, countries in the West were late in understanding its global impact on health, lives and the economy. Over the next months, the virus spread to all corners of the world forcing a global rethinking of how to answer the new threat. As the pandemic is still ravaging dozens of countries and vaccination efforts are mired in supply scarcity and logistic problems, it is worth to take a look at consumer behavior changes in countries that have entered a post Covid-19 scenario. China can be seen as the first country into the crisis and also the first one emerging from it. Looking at consumer behavior changes, however, let us first examine briefly the economic impact Covid-19 and the consequent countermeasures had on the world economy and on China in particular as it serves as the sample for our explorative study.

According to Baldwin and Mauro (2020), the worldwide economic shocks from the Covid-19 pandemic can be divided into three kinds, which are (1) medical shocks, (2) countermeasures and (3) psychological changes in people. The term “medical shocks” simply refers to the direct economic effects that increased sick leaves and deaths have on the economy. Annie Lowrey (2020) in November 2020 found that in the US alone additional disability and leave claims cost employers something like USD 20 billion; at a time when the US had recorded some 9 Mio. infected and more than 200,000 deaths (Lowrey, 2020). With numbers now at the time of writing this article (June 2021) standing at more than 33 Mio. infected and 600,000 deaths (John Hopkins University of Medicine, 2021), the economic impact has grown significantly beyond these numbers for the US alone.

Countermeasures, the second factor, refer mostly to the lockdowns and restrictions on traveling imposed by almost all governments throughout the world resulting in quarantines, reduced productivity because of remote working, disruptions of the supply chains and of course the shattering

impact on the hospitality and tourism industry. The International Labor Organization (ILO) is charged with keeping a “diary” of the impact of the Covid-19 pandemic on the labor market. In their most recent edition (No. 7) of the “ILO Monitor: Covid-19 and the world of work”, they estimate that in 2020 some 8.8% of global working hours were lost – an equivalent of 255 million full-time jobs (International Labor Organization, 2021). As the pandemic is still ongoing and indeed has worsened in several large economies since the beginning of 2021, numbers for 2021 and possibly 2022 will need to be added to this assessment. According to the International Monetary Fund (IMF) (2020), in 2020, the unemployment rate in most countries has increased. For example, in the United States, the unemployment rate went up to 8.9% from 3.7% in 2019. The United Kingdom also experienced an increase from 3.8% to 5.4%. China, where reportedly the Covid-19 situation is under control, had a slight increase from 3.6% to 3.8%. What is more, most countries have experienced GDP recessions in 2020. Based on the data retrieved from IMF (2020), the real GDP growth in the United States is -4.3% and in the United Kingdom it is -9.8%. China, on the other hand, reported a growth of 1.9% - far below the average of recent years.

The final impact area is the pandemic’s psychological impact on people causing changes in attitudes and behavior. This impact is much harder to assess and years of research might be needed to understand the differential impact. It is important to keep in mind that any influence will not be unidirectional and will depend on many mitigating factors. Consumer behavior in the beginning of the pandemic was easier to understand following typical mass crisis models with people storming shops for certain everyday life goods causing scarcity for toilet paper, tissues and similar products. Governments in most countries were fairly successful to avoid a spinning out of control. Rationing, price controls and assurances that production and delivery was working finally convinced people to stop hoarding these products. For masks and related health products where supply was not readily available, it took considerably longer. Other consumer behavior changes will become visible only in

the long run.

This explorative study attempts to shed light on one particular industry – the luxury goods industry – and whether and how the pandemic might have influenced consumption patterns. The luxury industry has been a constant driver of economic growth on a global scale. In the year before the pandemic, it was worth well beyond USD 1.5 trillion (D'Arpizio et al., 2020) and has seen strong support in younger consumers moving up the socio-economic ladder. Asia has provided strong support for this development, regardless whether buying in their home countries or abroad while traveling. If anything, the pandemic has shown the importance of the "Asian share". Although the purchase of personal luxury items also declined throughout Asia during the pandemic, e.g. in 2020 by some 7%, the overall share of Asia in the personal luxury items shopping market rose from 32% to 37% without even the oversea traveling that usually adds to their spending (Euromonitor International, 2021). The leading Asian countries in order of market size are China, Japan, South Korea and Singapore.

This study focuses on China, as here the pandemic stroke first but had been largely contained by the end of 2020. Starting 2021 despite some flares of infections in some contained areas most of China moved back to normal with restaurants and clubs being open, people traveling freely to domestic tourist destinations and workers returning to workplaces.

2. Literature review

2.1 Starting point and definition of luxury goods

A variety of industries is benefiting from globalization. So-called luxury goods are adding to their already existing popularity with more and more people around the world entering middle-class and upper-class income levels. Higher disposable income and a strong appeal of the luxury industry to these newcomers resulted in strong demand until the Covid-19 pandemic hit in 2020. Or has the influence of the pandemic been overstated on luxury goods shopping behavior? This paper is to better

understand how consumers in China react to a crisis like the Covid-19 pandemic and what factors influence the shopping behavior in luxury goods, if at all. Before reviewing the literature on prominent psychological and social concepts associated with shopping behavior, a definition of “luxury” and “luxury goods” is in order.

In economics, luxury goods are defined as those goods in which an increase in income leads to a greater proportion of increase in demand. Normally luxury goods tend to be sensitive to a person’s change in income or wealth, which means that the income elasticity of demand is greater than one. Luxury goods can be characterized as the opposite of necessity goods, people with wealth are typical consumers of luxury goods (Beierlein et al. 2014). In Veblen’s “leisure class” theory (1899), some luxury goods can be considered as those whose demand increases as the price increases. Veblen argued that people are willing to buy higher-priced goods in order to advertise wealth or display status.

In everyday life, the term “luxury” seems vague, the definition seems to depend on personal experience and other attributes. Luxury goods are normally considered as items that are pricy. Brun and Castelli (2013) suggested that luxury goods are historically associated with wealth, prestige and satisfaction of non-necessity. However, besides price, other aspects have been used to define the term. According to Kasztalska (2017), luxury goods have the characteristic of relativity. They can be defined differently based on factors like region, time, economy, culture, and situation. The relativity implied in this concept means that luxury goods are defined differently by different people depending on their own mix of the above factors. It also means that the perception of certain goods or brands as luxury is likely to change over a consumer’s lifetime. While a low-income starter in the job market perceives clothes of a certain brand as luxury, a few years later with higher earnings he or she is likely to consider that same brand as standard and has readjusted what brands count as luxury. What is more, while one item may be viewed as luxury in one culture, the same item would be seen so elsewhere. Kasztalska has also identified other characteristics of luxury goods. These are high quality, high price, no practical

utility, and peculiar beauty, etc. Each social group has a definition and own taste for luxury goods.

Wiedmann et al. (2009) have provided a theoretical framework of luxury goods' conceptual value in which four latent value variables account for perceiving a brand or product as luxury. These four variables are financial value, functional value, individual value and social value. Furthermore, nine influencing variables have been linked to these four key values. They are price value, usability value, quality value, uniqueness value, self-identity value, hedonic value, materialistic value, conspicuousness value, and prestige value. Wiedmann et al. have successfully identified functional value, individual value and social value as customers' major perceived luxury value perception while financial value plays only a moderating role. What is more, based on the different focus on the perceived luxury value, four groups of consumer clusters have been identified. These clusters are the materialists with high focus on materialistic and usability value, the rational functionalists with relatively high focus on quality and uniqueness value, the extravagant prestige-seekers with relatively high focus on social value, and the introvert hedonists with relatively high focus on hedonic value.

Because people define luxury goods differently, they can constitute a variety of segments. For example, the global management consultancy Bain and Company has been tracking luxury markets in nine segments. These include luxury cars, personal luxury goods, luxury hospitality, fine wine and spirits, gourmet and fine dining, fine art, high-end furniture and housewares, private jets and yachts, and luxury cruises. According to this company's recent luxury goods global market study (D'Arpizio et al., n.d.), the categories of personal luxury goods, luxury cars, luxury hospitality accounted for more than 80% of the entire luxury market in 2018, while the personal luxury goods segment has increased steadily worldwide and this growth is expected to continue through 2025 (the study was conducted before the Covid-19 pandemic). For this paper and the included survey, a coherent understanding of luxury goods is important. Hence, based on the research above and in an attempt to facilitate understanding of luxury goods, the author limited the survey to the segment of personal luxury goods,

that is clothing, leather goods and jewelry. An enumeration of well-known brands in the introductory part of the survey including brand names such as Cartier, Christian Dior, Chanel, Gucci, Fendi, Hermes, Louis Vuitton, Prada, and Rolex etc. should facilitate the understanding of luxury goods among survey participants.

2.2 Demographic variables and luxury shopping

Before later in the report looking at the suggested impact of psychological and social constructs on luxury shopping behavior, demographic and personal variables deserve a short overview. A common prejudice is that luxury shopping for clothes and accessories is a domain of women. We have all seen plenty of American TV dramas building on that perception. When however looking at the data, e.g. Parisi (2017) found that men are likely to spend more on luxury products than women. From shopping data in the USA for 2016/17, Parisi found that of the luxury shopping 58% was done by men and only 42% by women when analyzing the data on a value base. On a number-of-item base, the numbers were distributed almost equally with men purchasing 2.9 million and women 2.8 million luxury items. Levels of wealth and income might explain those results with males still earning more than females on average and hence being able to spend more on a per-item base.

Another important demographic variable is age. Buckle (2019) reported that millennials (age 23 to 36) have arrived as customers in the luxury segment with males being the driving force in this age group (67% of male millennials are luxury consumers). The overall strongest age group for luxury shopping is the age group from 25 to 44 – about two thirds of all luxury shopping is done by members of this group. Buckle also looked at the frequency for luxury shopping by age and found that approx. 50% of respondents in the younger age groups (16 to 24, 25 to 34 and 35 to 44) are shopping luxury products as regularly treats for themselves and often as gifts for others, while in the higher age groups (45 to 54 and 55 to 64) more than 50% of respondents answered that they rarely or never buy luxury

items (also not as gifts). Another source (Zhang, 2020) puts the percentage of luxury shopping by millennials at 32% of all luxury shopping with a strong increase expected over the next years. Already by 2025 millennials should account for more than 50% of all luxury shopping globally. Members of Generation Z, while strong as influencers in the digital world, are expected to still account only for 8% of all luxury shopping by 2025. It is also apparent that younger age groups depend more often and stronger on the opinion of their friends or peers for shopping luxury items, while members of older age groups consult with their immediate family members or buy products based on their own evaluation (Srinivasan, 2014). The relation between shopping behavior and age however might be culture dependent with for instance Nisha (2019) reporting from upcoming Indian luxury markets that the lowest age group (18 to 25 years) are the strongest consumers of luxury items. Zhang describes the currently strongest luxury consumer as a forty-three-year-old male in the high earning (but not rich) bracket between USD 100,000 and USD 250,000, embracing technology without being a digital native and in need of engaging shopping experiences.

While demographic variables have some influence on shopping behavior, personality variables might have a stronger impact. Subhadip, Raj, and Rashmita (2016) for example found that only nine percent of variance in shopping behavior can be explained by demographic variables such as age and gender, while more than forty-six percent are explained by personality characteristics like extraversion, open mindedness and stability (vs. neuroticism).

While the influence of demographic variables is not the main point of this study, it will be interesting to see how age and gender are correlated with luxury purchasing behavior and attitudes towards purchasing in the sample of Chinese consumers in this study.

2.3 Luxury consumption worldwide and in China

Even without looking at sales and other statistics, the increasing importance of the Chinese

market for luxury brands has become apparent with more and more brands establishing flagship stores and regional headquarters in China's big cities. Major brands such as Louis Vuitton, Gucci etc. opened in the Nineties with smaller brands following in the new millennium. The luxury market in China increased significantly in recent years and Chinese customers have become a focus for the world's designer brands no matter, whether the shopping happened in China, outside of China at popular tourist destinations or online. According to the China Luxury Report 2019 from McKinsey and Company (Luan et al., 2019), Chinese consumers have contributed more than half to the global growth in luxury consumption between 2012-2018 and are anticipated to contribute two thirds of the global growth in luxury consumption by 2025. In this report, it was also pointed out that in 2018, post-'80s (people who were born between 1980 and 1989) and post-'90s (people who were born between 1990 and 1999) consumers are the major groups in total spending accounting for approximately 79% of luxury goods consumption in China. The lion share falls to the post-'80s consumers accounting for approx. 56%. Another finding in this report is that young customers started buying luxury goods in recent years. Only 13% of post-'80s and post-'90s surveyed grew up with luxury. Concerning information and purchase channel preference, the report suggests that all Chinese respondents surveyed obtain information on luxury goods from both online and offline sources once per week. However, in this report conducted pre-pandemic the number of consumers who prefer making purchases offline accounts for 92%. Among the respondents, 90% of them have agreed that in-person experiences at brand stores can help make purchase decisions because they consider in-store employees as a reliable source who can provide product information and purchase advice. Finally, the report concludes that although digitalization is gaining popularity in our daily life, offline purchase will still dominate the luxury sales channel in the near future. In addition, Chinese consumer behavior likely has changed due to the pandemic. After China introduced severe and strict lockdowns in many major cities in 2020 following recognizing the Covid-19 virus outbreak as a serious threat, Chinese consumers were

prohibited from shopping in brick-and-mortar stores.

For the year of 2019, researchers D'Arpizio et al. (2020) found that the total luxury market has experienced a growth of 4% and reached approximately €1.3 trillion in nine segments. The core segment, personal luxury goods, has also grown by 4% overall. In particular, Chinese customers contributed 90% to the global market growth, which means that 35% of the value of luxury goods were bought by Chinese customers and the figure is likely to continue to increase up to 46% by 2025. It is reported that in 2019 generation Y (born between 1980 and 1995) have remained steady luxury consumers who accounted for 35% of the overall consumption. Generation Y and generation Z (born between 1996 and 2015) consumers dominate the luxury market and contribute all of the growth. When it comes to purchasing channels, it was also reported that the majority of luxury goods have been sold offline although the usage of online channels is fast growing.

Finally, for the year 2020, there is no doubt that the Covid-19 pandemic has heavily affected the luxury industry. In the luxury goods report of Bain and Company, D'Arpizio et al. (2021) point out that the overall luxury market has declined by 20% to 22% at current exchange rates and returned to its 2015 levels. Among the luxury segments, personal luxury goods experienced the severest impact, falling by 23%. It is notable that online shopping has grown significantly by 50% and its share has reached 23% of global luxury sales, nearly doubling from 12% in 2019. In contrast to online purchases, the number of brick-and-mortar stores saw no growth and is likely to decline in 2021. What's more, in 2020, Asia has become the top region to contribute the most to luxury sales mainly because of the performance of Mainland China. In another market research provided by Bain and Company (Lannes & Zhang, 2020), China has contributed about 48% growth to the luxury market in 2020. The Covid-19 lockdown and travel restrictions kept Chinese customers from purchasing goods while being on vacation abroad. Because the international luxury goods market except China experienced a severe decline, the share of China's luxury market in the global comparison nearly doubled. Estimates put it

now at roughly 20% of the global market, up from 11% in 2019. That share might decline somewhat in 2021 and particular 2022 when the world expects to overcome the Covid-19 related economic and health crisis and personal restrictions. Pent up demand for other luxury segments such as luxury travels among Chinese customers might propel them to growth drivers in other luxury segments though.

2.4 Consumer behavior research

Before diving into the psychological concepts that the author identified to relate to luxury shopping, a more general overview on theories dealing with consumer behavior is warranted. Without aiming at an exhaustive enumeration (1) the Theory of Reasoned Action, (2) the EKB Model by Engel, Kollet and Blackwell, (3) the Motivation-Need Theory and (4) the Hawkins Stern Impulse Buying Theory seem to represent different research areas, all of which depict consumer behavior as behavior more or less dominated by reason and the consumer behaving as a reasonable actor.

The Theory of Reasoned Action developed by Martin Fishbein and Icek Ajzen in the Sixties stresses the importance of antecedents of purchase behavior and predicts consumer behavior from the consumer's intention to achieve a certain outcome (Lyong Ha, 1998). Clearly, the consumer in this theory is a reasoning actor following his or her intentions and weighing different outcomes of purchasing opportunities. The theory builds on two basic components, an attitudinal component and a subjective norm component and attempts to predict behavior without complicating it with too many parameters (Sulehri & Ahmed, 2017). The components describe cognitive processes of the consumer during and after the shopping, where the store environment generates signals to affect the consumer. Chuchinprakarn (2011) showed how the theory was applicable to online shopping in the context of consumers in Thailand by operationalizing the two basic components through four constructs like trust and confidence in using credit cards (part of the attitude component), influence of friends (subjective norm) and past behavior. Adding past behavior allowed for a more precise prediction of online

shopping behavior and seems to be a meaningful extension to the original theory of reasoned action.

While reasoning is also important in the EKB model, the focus in this model is on information processing. Former consumption acts are mentally stored as information and experience and serve to influence later acts of consumption, however decided and evaluated through reason (rational decision making) – named as central control unit in the model's context (Hirschman, 1989). The model assumes a staged decision-making process with the four parts (1) information input that includes stimuli from marketing and non-marketing sources and triggers off the (2) decision-making process, (3) the information processing stage in which consumers interpret, accept, and retain the information of received stimuli, (4) the decision process stage, variables influencing the decision process and external influences. In particular, even if consumers eventually reject the product, knowledge and experience can be retained for future use. This model is somewhat influenced by the Howard and Sheth model that similarly puts emphasis on consumers' internal search, transformation and evaluation processes. However, the EKB model includes personal traits of a consumer such as values, personality, attitude, and lifestyle, etc. Furthermore, in 1979, Bettman developed the information processing theory of consumer choice. According to him, most actions take place within a consumer based on his/her information processing capacity. Rather than external factors, the consumer's mind is present in the whole process and the internal capability of information processing plays a decisive role in motivation, information acquisition and evaluation, as well as decision-making. Finally, Bettman proposed that a successful purchase after decision-making can result in additional knowledge and experience, therefore enhancing a consumer's information processing ability for future purchasing decisions.

Abraham Maslow (1954) established a motivation-need theory explaining that consumer behavior is strongly affected and motivated by their needs. These needs can be ordered along a five-step hierarchical system. Since Maslow's need theory is broadly used and accepted nowadays, it has strong marketing implications. Marketers can use this theory to anticipate customers' behavior and

further refine their services and products. In this paper, the author is also applying Maslow's motivation-need theory to the analysis of luxury consumption. More details about this theory will be provided in the next section.

The theories above are more or less emphasizing rational consumer behavior. Rational consumer behavior is often the result of a rational decision-making process. Based on previous research, the rational decision-making process is a logical sequence of activities and it can be broken down into six parts, which are identifying the problem, generating alternatives, evaluating alternatives, selecting an alternative, implementing the decision and finally decision effectiveness. There is a possibility that the process may be recycled due to difficulties occurring at any stage (Lunenburg, 2010; Schoenfeld, 2011).

While a number of research papers (e.g. Katona, 1953; Ho, Tang & Bell, 1998, etc.) demonstrates consumer behavior with the focus on rationality, Hawkins Stern (1962) developed his impulsive buying theory suggesting that consumers can act irrationally. In his theory, four types of impulse buying are discussed which are (1) pure impulse buying, which occurs purely based on the consumer's impulse, (2) reminder impulse buying, which is normally triggered by a consumers' memory or experience, (3) suggestion impulse buying, which happens when a consumer sees an item for the first time without any prior knowledge and (4) planned impulse buying, which occurs when a consumer has a purchase plan and the intention for the extra is depending on factors like price, etc. Additionally, consumers are more likely to buy impulsively when the purchase requires few buying resources such as money, time, physical or mental effort. Lastly, consumers may purchase a product or service without planning in advance under the influence of external stimuli. Hawkins Stern summarized nine major stimuli which are low price, marginal need for items, mass distribution, self-service, mass advertising, prominent store display, short product life, small size and light weight and ease of storage. In our everyday life, the incidence of impulse buying is increasing. Consumers can be impulsive when

shopping because they can quickly accept a new way of purchase. Hawkins Stern's theory definitely has marketing implications, he suggested that, in order to meet consumers' expectations in this regard, manufacturers should work on product design and distribution, while marketers should change the way of advertising and retailers should improve their selling strategies. In regard to luxury consumption, planned impulse buying is often linked to consumers' behavior. Hawkins Stern pointed out that there is an increasing number of shoppers who do not make a decision on what to buy until they get to the store. External factors such as the store itself and the interaction with shop employees influences a consumer's purchasing decision. This phenomenon is not rare when it comes to luxury consumption.

Hausmann (2000, p. 403) suggests that "impulse buying is a common method of product selection […] because the shopping act and impulsive product selection provide hedonic rewards." Hence it is not surprising that some data suggests a very high percentage of impulse shopping in luxury products. Smith (n.d.) for instance points out that almost 80% of luxury shopping in American luxury product shops base on impulsive shopping with numbers for the UK reaching even higher percentages of impulsive luxury shoppers. An article from Fibre2Fashion (2012) puts the average impulse buying rate to 40% of store visits, 88% of which are caused by merchandise on sale motivation. There might however be additionally differentiating influences from other variables and the question how reliably these observations apply to other cultures outside the Western World mind frame. Nwankwo, Hamelin and Khaled (2014) for instance found in a sample of 400 participants that variables such as gender or education correlate with impulse shopping luxury products in the sense that women tend to do more impulse shopping and higher education is related to lower rates of impulse shopping. Impulse shopping is also influenced by personality traits. Anant, Anshul and Saumya (2016) showed that traits such as extraversion have a significant positive relationship with impulsive shopping behavior. Extraversion was assessed with items indicating talkative, bold and assertive behavior. Another Big Five trait,

conscientiousness, however showed a negative relationship, suggesting that this group of consumers need a lot of information and the feeling to arrive at an informed decision – the very opposite of buying impulsively. As one part of the author's study, more details about impulse buying will be discussed in Chapter 3.

2.5 Focus Studies I: Maslow's Hierarchy of Needs, Extensions and Application to Chinese Consumers

A few studies have been undertaken previously in order to investigate consumer behavior for luxury goods and the relation to psychological and social concepts.

Several of these papers include Maslow's Hierarchy of Needs theory either in its original form or in some modified/extended form. The original motivational model of Maslow's Hierarchy of Needs orders human needs into a five-step hierarchical model (1954). The model is a general model not limited to consumer behavior. In a consumer context however, the theory holds that consumers start a decision-making process based on identifying or being motivated by a need. Therefore, understanding consumers' needs would contribute to a better understanding of consumer behavior. The original model builds on a pyramid of five levels. From the bottom upwards, the needs fall in the categories of physiological needs (food, water, air, etc.), safety and security needs (protection, order, stability, etc.), love and belongingness needs (affection, friendship, belongings, etc.), esteem needs (prestige, status, self-respect, etc.) and self-actualization needs (self-fulfillment, etc.). Maslow proposed a hierarchical structure to show that higher order needs (that is needs on a higher level of the pyramid) only emerge after lower order needs are more or less satisfied. Other researchers but also Maslow himself expanded the model later on. An expanded hierarchy model proposed in the 1970s includes three new needs that are cognitive needs (knowledge, curiosity, exploration, etc.), aesthetic needs (search for beauty etc.), (Maslow, 1970a) and transcendence needs (the pursuit of science, religious faith, etc.) (Maslow,

1970b). These needs can be divided into two categories. The first four levels are often referred to as *deficiency needs* in which instinct gratification can be achieved and motivations decrease when needs are fulfilled. The top four level needs (cognitive needs, aesthetic needs, needs for self-actualization, and transcendence needs) are referred to as *growth needs* in which motivation increases when needs are fulfilled (McLeod, 2020).

Maslow's needs theory can contribute to the explanation of consumer behavior for luxury goods purchases by providing a conceptual framework. Hennigs et al. (2013) propose that the perceived values of luxury goods are valid across countries and cultures, therefore, the basic motivation that drives luxury goods can be generalized. However, on an individual level differences in perception exist which explain individual behavioral differences. The clear distinction between a general valid model and individual perception differences becomes somewhat blurred however when taking into account that perception itself is subject to cultural differences and modifications. The importance of consumer perception is also highlighted in a study by Shahid and Farooqi (2019) who show that brand attitude can positively and significantly impact consumers' perceived luxury values such as social values, personal values and functional values. In addition, they argue that these three perceived luxury values have positive influence on consumers' purchase intention. At the very least they are positively related to the consumers' actual purchasing behavior. The most prominent correlation existed between social values and purchase intention (Farooqi & Shahid, 2014) meaning that the perceived social values have higher influences on customers' purchase intention than personal values and functional values do.

The Maslow model or its extensions however are not the only stage model used to describe luxury brand shopping and consumer behavior. Becker et al. (2018) established their own model (BECKER model) in a study that tried to describe the relationships between the concept of luxury brands and consumer cognition and behavior. The authors built on a model of three developmental stages on each

of three different dimensions. These dimensions are luxury product characteristics, consumer luxury brand relationships and consumer psychological characteristics. The three stages in each of the three dimensions move from cognitive to extrinsic and intrinsic stages, with cognitive elements forming the basis and intrinsic elements the highest developed stage.

For two dimensions - the luxury product characteristics and the consumer psychological characteristics - the basic (cognitive) stage consists of quality, aesthetics and price. When consumers derive their satisfaction for luxury products from these elements, proxy for these elements become characteristics of consumers. Rather than actual outstanding quality or aesthetics it is the *perceived* quality and aesthetics that create the consumer-brand relationship. Perception however is driven strongly by marketing and brand presentation to a consumer. The brand consumer when continuously buying and investing in this perception will add congruent traits and attribute such characteristics like trustworthiness, reliability and dependability to the brand. On the second stage, the consumer relies on elements such as exclusivity and uniqueness. He or she shows off luxury goods as an extrinsic signal of high social status and association with specific groups of consumers. The consumer shows that he or she belongs to a higher social status group who are defined by possessing unique brand items. Emotions play a strong role in this consumer-brand relationship and the respective consumers often turn into active brand promotors through a mix of perceived membership to the higher social status group and actively defining that group through their own behavior. This strong group identification in turn makes the consumer to shut out contradicting information from others (non-group members). At the most advanced level - the intrinsic stage - self-image and self-identity are developed among consumers. As consumers' psychological characteristics become more intrinsic, the required symbolic heritage of luxury products characteristics increases. The consumer-brand bond turns into something magical and intimacy with consumers seeing themselves as committed client deserving special recognition by the brand.

The difference in perceived value between Southeast Asian luxury consumers and Western luxury consumers has been discussed by Wong & Ahuvia (1998). In the Western culture in which individualism is common, consumers tend to take their own thoughts, personal feelings, tastes and judgement into consideration. Hedonic experience is where they put the emphasis on. The notion that groups and society serve to meet individual needs is broadly accepted. Therefore, when purchasing luxury goods, with less social pressure and interpersonal consideration, Western consumers make conspicuous consumption decisions based on their materialistic traits and perceived values. In contrast, Southeast Asian societies share the Confucian tradition in which individuals are more interdependent. Group orientation and social interactions are considered very important in Southeast Asia. Hence Southeast Asian consumers normally purchase luxury goods for social reasons. It is also argued by Wong and Ahuvia that in Southeast Asian societies, there is usually a socioeconomic hierarchy in which consumers often use symbolic goods to locate their desired position. What is more, because choosing a certain luxury product can often reflect social norms and a person's taste which he/she expects others to recognize, gift exchange in luxury goods is very common while in Western societies, treating oneself or treating one's partner (not to show off one's own taste and purchasing power) is the more dominating motive. That does not mean that conspicuous consumption is absent in Asian cultures. Indeed, He (n.d.) found that in Chinese consumers those who are motivated by conspicuous consumption buy more luxury products. The conspicuousness of a product itself is related to a person's susceptibility to reference groups.

In the context of Chinese consumers, Sun et al. (2014) determined that the interest of Chinese consumers in purchasing luxury and brand goods is influenced by three cultural values with strong Chinese cultural context. These are face, guanxi and harmony. In Sun et al.'s study, face and guanxi showed a positive relationship with the intention of purchasing luxury purchase items, which was interpreted by the authors to mean that consumers in China seek to gain social meaning and try to

enhance their social status by purchasing luxury goods. The positive correlation for the first two factors contrasts with the negative correlation of harmony with luxury purchase intention. Finally, they concluded that – unlike in Western societies in which individualism is well promoted – the so-called self-expression character is not broadly accepted in China.

Face (mianzi in Chinese) was defined by Goffman (1967) as a public social self-image that is dependent on both social values and social interaction with others in a certain situation. Face reflects the way that a person wants to be perceived by others. Therefore, a person normally commits a social act in order to address his/her face. Face is related to social status and power and the desire for a person to gain face reflects social approval and recognition (Hwang, 1987). Guanxi literally refers to social interpersonal relationships. According to Hwang (1987), guanxi is more emphasized in the Chinese culture than elsewhere when it comes to social interaction. People in China tend to evaluate the relationship with others before they engage in further interaction and social exchange. Leung and Chan (2003) proposed that people with high guanxi consciousness are willing to put effort in improving their social positions for the purpose of material benefit. Harmony finally is the desired state where balance in an interpersonal sense is well established. It is another value emphasized among Chinese in a social context. It ties people and nations together and Chinese people tend not to share disagreements in order to avoid discord (Müller, 2012). According to Yau (1988), because people with harmony consciousness tend to be more group oriented, they usually hold a high degree of moral self-control and self-regulation. In other words, they hardly express their true feeling in public or share them with others.

As stated previously, the young generation of Chinese has become the major force in consumption of brands and luxury items as most of them started to pay attention to luxury goods in recent years. According to Sun and Wang (2010), due to the social transformation, there is a significant generation gap. In China, the younger generation follows modern values rather than traditional ones. They attach

a higher value to self-development than to traditional values promoting group contribution. Hence, their lifestyle sets them apart from the lifestyle of just one or two generations before. Applying this to young Chinese consumers, Luan et al. (2019) found out that while Chinese consumers in all generations are interested in buying brand items, younger consumers are starting to pay more attention to additional factors such as design, style and material. Although they view luxury goods as social capital, it seems that more and more of them are changing their attitudes towards luxury consumption. They start to purchase luxury goods for themselves for some intrinsic reason.

From the above literature review, the author arrives at the following hypothesis:

H1: Chinese consumers who shop luxury brand goods are motivated more by their deficiency (social) needs than growth (aesthetic, intrinsic) needs.

The economic effects of the pandemic and consequent countermeasures as described in the introduction might have increased the motivation to shop luxury products for social needs. In particular, as reputation (face) is heavily influenced by appearances, Chinese who value their reputation and want to avoid to be seen as one of the economic pandemic losers will continue or even increase brand shopping to keep face. Hence keeping face could be an even stronger motivation for Chinese shoppers now after the pandemic is ending than before. With the rebounding economy they are also likely to have an optimistic outlook and actually feel financially secure enough to spend on luxury brand products. Therefore, the author proposes the following hypothesis:

H2: After the Covid-19 pandemic luxury shopping is even stronger motivated by social needs in Chinese consumers.

2.6 Focus Studies II: Social Status Theories

While the models based on “needs” above are clearly helpful for the explorative investigation in the luxury brand shopping behavior of Chinese consumers in relation to the Covid-19 pandemic, two

other related psychological concepts will be explained in this and the next chapter. These are the social status theory and the delay of gratification theory.

American economist and sociologist Thorstein Veblen has come up with the famous theory of the "leisure class" in the 19th century. In his theory, wealthy people often tend to buy expensive goods and services in order to publicly display their social status and economic power. This behavior is referred to as conspicuous consumption and usually involves the purchase of luxury goods (Veblen, 1899). Much later the term "Veblen effect" was further developed by Leibenstein (1950) and Bagwell and Bernheim (1996). Their extensions suggest that increasing the price can actually encourage conspicuous consumption. People with more disposable income are more likely to pay a higher price for a product in exchange for the perceived social approval that product provides although the quality and function of the respective product may be equivalent to other less expensive goods. Products qualifying for this shopping behavior are called Giffen goods.

Leibenstein (1950) has developed a theory about consumers' motives for luxury goods and distinguished them into functional needs and non-functional needs. Non-functional needs include the so-called Bandwagon Effect, Snob Effect, and Veblen Effect. He further formulated a demand curve that explains the property of Veblen goods. In a certain price range in which the Veblen effect dominates, demand increases as the price increases. When looking at what products fall into this Veblen effect curve and hence qualify for conspicuous consumption, Charoenrook and Thakor (1998) provided some answers. They found that when products require more time and space to display, in other words, when the display costs of the goods are higher, consumers will be more likely to purchase them at a higher price for reasons of conspicuous consumption. Moreover, higher restrictions on space and time availability can lead to a higher price of conspicuous goods. Finally, goods with higher utility spread in the cross-section of consumers are more likely to qualify for conspicuous consumption. In today's society, luxury brands are broadly considered typical Veblen goods. The Economist (1993) has

pointed out that a crucial characteristic of luxury goods is exclusivity stating that "[r]etailers can damage a glamorous good's reputation by selling it too cheaply". Another related research study in regard to status signaling was conducted by Han, Nunes and Dreze (2010) who proposed their own construct "brand prominence" and investigated the differential effects of four groups of consumers (high/low wealth paired with high and low need for status) on brand shopping. Depending on their need for social status, consumers would buy loud or silent luxury goods for people high in need for social status and those with low social status needs respectively. Their data goes as far as to suggest that brand product consumers with low social status needs actually pay higher prices for typical luxury brand items with less conspicuous displays of logos and brand elements. Han, Nunes and Dreze suggested that wealthy consumers with no need for status signaling have a tendency to buy quiet luxury goods that have few or no visible marks or only those they and their likeminded peers can recognize. Compared to them, wealthy consumers with high desire for status signaling have a tendency to purchase loud luxury goods that are easily recognizable. Finally, another group of consumers, who cannot afford luxury goods but are eager to "display" their status tend to purchase loud counterfeits. This work has expanded Veblen's theory from a two-tier consumer (wealthy or not) to a more complex array of consumer types given the fact that traditional luxury brands are also targeting mass markets. Nowadays more and more factors can influence shopping behavior and the purpose of luxury consumption may be even more diverse than Han, Nunes and Dreze suggested.

Looking at what happened in the marketplace, it can be observed that luxury brands keep adjusting their pricing strategies in order to cater consumers' expectation. In 2020, with the Covid-19 pandemic in full swing and no end in sight, top luxury brands such as Louis Vuitton, Chanel and others decided to increase prices for some of their products. According to market data (Aloisi & Yu, 2020), Chanel has increased the price of its iconic handbags and some small leather goods by up to 17% claiming an increase in cost of raw materials caused by the pandemic. Louis Vuitton, after enjoying a

sales growth of over 50% in China when the lockdown was lifted and Chinese consumers were allowed to go to retail shops, has pushed up prices of some products globally.

Deep Dive: Impression Management Theory

Reflections on how to display oneself in the context of others and how others do react can be seen from a wider social psychology perspective, that is from social comparison theories and in particular impression management theory. Comparison with others may serve a number of purposes such as getting an accurate understanding of oneself, or self-enhancement or self-improvement (e.g. when comparing oneself to role models) and can happen intentionally (as in the role model example) or unsolicited (Taylor, Peplau & Sears, 1994). Unsolicited comparisons can have a strong influence on a person's self-esteem, satisfaction or self-evaluation in tasks. Learning from these comparisons and other available information, people actively try to present themselves in a way to impose some control over a situation and therefore increase the probability for certain (desired) outcomes. Goffman has described people acting on both a front-stage and a back-stage when organizing impression management (in Taylor, Peplau & Sears, p. 157). On the back-stage people prepare themselves, the environment, and include props that increase the desired effects. On the front-stage they are acting out their rehearsed scripts and play the roles they believe will provide the best outcome. An essential part for self-presentation to succeed is to know the audience – something greatly facilitated in today's fashion and luxury industry dominated by social media (such as Instagram etc.) which allow for immediate comparison with one's own efforts.

Strategies to achieve a desired impression in others include to know and conform to the expected rules and norms of a certain encounter, to match one's behavior to others, to promote oneself without overdoing it and in turn ingratiate other members of the encounter (that is compliment others on e.g. their sense of fashion and product choice). Use of modesty (if the other members of the encounter

know the not so modest truth), associating with people who express the desired impression and congruence between statements and non-verbal expressions can additionally enhance the achieved impression (Taylor, Peplau & Sears, 1994). Given the role fashion and wearable luxury products play as an immediate eye-catch in social situations, it is not surprising that they play an important role in impression management. Indeed, there is a whole conference cycle dedicated to fashion psychology and impression management (available at https://waset.org/fashion-psychology-and-impression-management-conference).

Howlett, Pine, Orakcioglu and Fletcher (2013) found that even minor changes in clothing created significantly different impressions particularly in settings when other features such as face, hairstyle etc. are not well visible. Gatlin (2014) has demonstrated the use of fashion and impression management in a cross-cultural comparison including an Asian culture (Japanese) in order to define a whole subculture's look and elicit the expected impression from people encountering members of the subculture. Eun (2016) showed that impression management through fashion was positively and significantly related to career success in a sample of more than 700 Korean participants and Ni and Lio (2020) found evidence that in Chinese online self-impression management clothing was a distinguishing factor between groups of athletes. In the ever more important online environment remaining a visible member of one's desired peer group becomes even more demanding. While it facilitates some critical features of impression management (in particular it provides a vast compendium of what other desired members wear and how relevant group members or the wider public reacts to products and styles), it also requires higher degrees of professionality to achieve the desired impact. Siibak (2009) showed that the most important reason for young people to upload a picture on any social networking platform is that the person perceives himself or herself to look good in that picture, directly fashion related motives such as my clothing is trendy, the clothing style I like, brand preference are also important motives. One of the reasons for social networks to be a popular

way of impression management is that asymmetry between reality and displayed self can be better controlled by the actor than in real-life settings. Or in the words of Tashmin (2016, p. 98) "[s]ocial networking sites allow users to create identities for themselves that emphasize those qualities which are either desirable or noteworthy, in some cases allowing people to develop entirely new personas that depict them favorably".

The research cited above have explained that consumers' shopping behavior in luxury goods is linked to their willingness to display status. Furthermore, Kim et al. (2018) have come up with a theory that divides a single status goal into two constructs. Their research distinguished between two goals of status maintenance and status advancement and investigated how the goals are triggered by consumers' political ideology and subsequently lead to luxury consumption. More specifically, when consumers have already achieved a certain desired social status, they show the tendency to maintain their social statues. In contrast to that, when consumers have not yet obtained a desired social status, it is more likely that they try to advance social status. Additionally, Kim et al. have proposed that conservative political ideology is about sustaining the existing order and closely linked to social status maintenance goals. In order to maintain social status, consumers with conservative political ideologies show more desire for luxury goods. However, the social status advancement goal is not related to conservative political ideology, hence when this goal is activated, it does not affect the desire for luxury goods. Although the work of Kim et al. has identified two constructs of social status, the focus of their paper was on social status maintenance. In regard to luxury consumption in China, Zhang and Wang (2019) have pointed out that the main purpose of luxury consumption for Chinese consumers is "*showing off*". Rather than wealth, Chinese consumers tend to express their socially desired positions to others. Given the fact that the concept of face is deeply rooted in Chinese traditional culture, Zhang and Wang have investigated two dimensions of face that may affect Chinese consumers behavior: desire to gain face and the fear of losing face. They found that all generations of Chinese consumers

are afraid of losing face and take great effort to avoid the loss of face. On the other hand, young Chinese consumers have less concern for gaining face than older Chinese consumers. As expected, both the desire to gain face and the fear of losing face influence the consumption behavior of luxury products. They concluded that luxury assumption can be motivated by both promotion factors (desire to gain face) and prevention factors (fear of losing face). So far, researchers have focused on the promotion motivation aspect while little attention was paid to the prevention of loss motivation aspect. In this exploratory study, inspired by the research cited above, the author decided to examine social factors that potentially affect luxury consumption in Chinese consumers along two dimensions. Therefore, the following hypotheses are proposed:

H3: Chinese consumers are shopping for luxury brand goods in order to maintain their perceived social status.

Again, as explained for formulating H2, the respective effect (here: maintain perceived social status) might have undergone some change over the course of the Covid-19 pandemic. Many young Chinese consumers may have suffered (or are still suffering) from economic hardship caused by Covid-19 pandemic but have a strong desire not to let others know about their hardship, that is maintain their social status. Hence the hypotheses:

H4: More Chinese consumers show desire for luxury consumption after Covid-19 pandemic in order to boost their social status or avoid the loss of face.

H4.1: This is particularly apparent in consumers who have suffered or are suffering economic losses in the course of the pandemic.

2.7 Focus Studies III: Delay of Gratification

Another psychological concept that could help explain consumer behavior and changes related to before and after the Covid-19 pandemic is delay of gratification. The delay of gratification concept was originally introduced in the context of testing school children for psychological factors predicting their success in later years by a group of researchers around Mischel. He also devised the original test for delay of gratification, the so-called marshmallow test (Behrens, 2015). Children had to decide on eating one marshmallow, cookie or other treat immediately or to get two or more after a longer delay (usually when the researcher left the room and explained that he would need some time to get back). As a measure of self-control, it was a strong predictor for social integration and school success itself.

Delay of gratification is routinely investigated in the context of shopping behavior particularly in regard to so-called planned and impulsive shopping with impulsive shopping defined as shopping that does not follow some rational model (Wood, 1998). Wood sees the core of what impulsive shopping is as the akratic action, that is a "free, intentional action contrary to the agent's better judgment" (Mele, 1987, in Wood, p. 299). Present consumption hence is deferred to allow the consumer a better (that is rationally more advantageous) shopping experience later in terms of better prices, more suitable alternative products etc.

Castel (2016) connected delay of gratification to online shopping experience – the prevailing mode of shopping during the pandemic. As long as drone delivery service is still in the planning and prototype stadium, waiting time for delivery (as short as a few hours when ordering something in store in a city with strong logistic services) is the only part of the experience preventing customers from an immediate satisfaction experience. Castel argues that it is this waiting and the related delay of gratification effect that keeps us coming back for more. He states that "[d]elayed gratification can enhance our appreciation of things, even if only for a brief period, and will keep us tethered to the entire process, want it, need it, see it, evaluate, eventually choose one out of 3,485 options of shoes,

then wait, and finally enjoy".

The feeling of gratification growing due to the waiting process provides additional pleasure over an immediate shopping experience. Moreover, additional aspects of the online shopping experience actually help to increase the feeling of pleasure. Anticipation increases through means of package tracking similar to the principle behind Christmas as Castel states. Shao (2014) arrives at a similar conclusion from looking at consumer data from the US, UK, Brazil and China and seeing the high excitement rates consumers experience when receiving messages updating them on the delivery status of their parcels. In Shao's study, more than 80% of Chinese consumers are more excited about online shopping than shopping in a brick-and-mortar store.

Following the above sources and data it would seem that online shopping was at least as good or maybe even better an experience for many customers particularly in China and hence the end of lockdown and restrictions would not have much of a difference in terms of shopping behavior. However, at least two considerations point in another direction. One is a theoretical conclusion, the other is observed data from shopping floors after the reopening. A theoretical contradiction to online shopping simply replacing real shopping during the lockdowns is that although the online shopping experience itself might be equally satisfying, an essential part of buying brand products is the opportunity to show them off. With lockdowns restricting people's movements and stopping social events from happening, this opportunity is missing. Hence, we expect a reduced shopping behavior during the restrictions and a bounce back after the opening as people cannot only visit stores but also are being seen again on streets. The second observation comes from shopping data. Although there is little general data available, some anecdotal data such as Hermes' reopening revenue of its Guangzhou flagship store of more than USD 2.7 Mio. (Saunter, 2020) or the combined revenue results from the Double Five shopping festival in Shanghai after lockdown restrictions bringing in some USD 2.2 Billion in just twenty-four hours (Villanueva, 2020) show pent up consumer demand. As economies

are still performing poorly and economists expect higher rates of unemployment once government sponsored and regulated job support schemes end, the brand product shopping of a large number of people can be characterized as impulsive shopping behavior.

Lins, Aquino, Costa and Koch (2021) describe changed consumer patterns as coping strategies people employ to cope with mental health problems like anxiety, depression and stress and count compulsive buying, impulsive buying and revenge buying among changed consumer behavior. While panic buying dominated the early stages of the crisis (people rushing to shop for everyday life items to create a feeling of security), revenge buying was reported post crisis for instance around mid-March 2021 from China and other countries. As Lins, Aquino, Costa and Koch noted, revenge buying was particularly strong in luxury products.

Cappellari et al. (in Lins, Aquino, Costa and Koch, 2021) provide the argument that “conspicuous products provide sensations, pleasures, and emotions and compensate for negative feelings experienced.” In Chinese language there is even a phrase called baofuxing xiaofei that describes the sudden demand for Western fashion and luxury products observed after Chinese customers gained access to foreign brand products after decades of poverty and deprivation in the late 70s of the last century.

From a conceptual point of view, Brehm’s reactance theory offers a deeper understanding of the psychological processes involving revenge buying. Brehm (1989) argues that people become motivationally aroused by the elimination of a behavioral freedom. As this is experienced as an emotionally negative state, the respective individual tries to return to a balanced state and Brehm maintains that acquiring not just any freedom but only acquiring the specific freedom lost would compensate the individual properly. Immediately after losing the respective freedom, an internal process of re-evaluation starts and the affected individual starts to rate the lost freedom all the more important; more important than it might have rated it before the loss. Regarding the strength of the

reactance behavior, Brehm maintains that not only the immediate importance of the lost freedom but more importantly the size of the “implied threats” (p. 74) count. It is straightforward to see how this theoretical framework fits to the deprivation of shopping freedom for consumers in the context of our research topic. While even during lockdowns and other restrictions government took great care to maintain access and sufficient supply for foodstuffs, beverages and everyday life consumables, luxury fashion goods were not on that list. Consumers were deprived of access to their brands and luxury items and because of the extent of the restrictions to all fashion and luxury stores they were also unable to shop for substitutes. This would assume a strong shopping behavior in the short term after the release of the restrictions as a reactance behavior. As luxury fashion products were not per se in short supply or difficult to obtain after the lockdown ended, we can expect this revenge buying behavior powerful but short-lived.

In this explorative study the author therefore wants to look at whether consumer behavior in the sample of Shanghai shoppers is more driven by delay of gratification patterns or whether pent up desires outweighed subject’s existing traits for delay of gratification. The tentative data cited above therefore leads to the following hypotheses:

H5: Shopping behavior after the removal of the Covid-19 lockdowns was at least as strong as before the Covid-19 lockdown, speaking against a general delay of gratification effect.

H6: Consumers high in the delay of gratification trait show lower rates of shopping after the removal of the restrictions, indicating that they are delaying gratification to a more stable economy.

2.8 Research Framework

The figure below displays the logic and timeline behind the above hypotheses in relation to the development of the pandemic and the respective user behavior. As in many other countries the pandemic and the government response followed a similar pattern in China. Having gained some

experience from prior outbreaks of infectious diseases, the government of China reacted with lockdowns of whole cities and provinces, imposed severe movement restrictions on people and closed down all but essential shops and social gathering opportunities. The countermeasures therefore reduced social activities and after restrictions broke the chain of infections, the government allowed for a (staged) reopening of the society and economy.

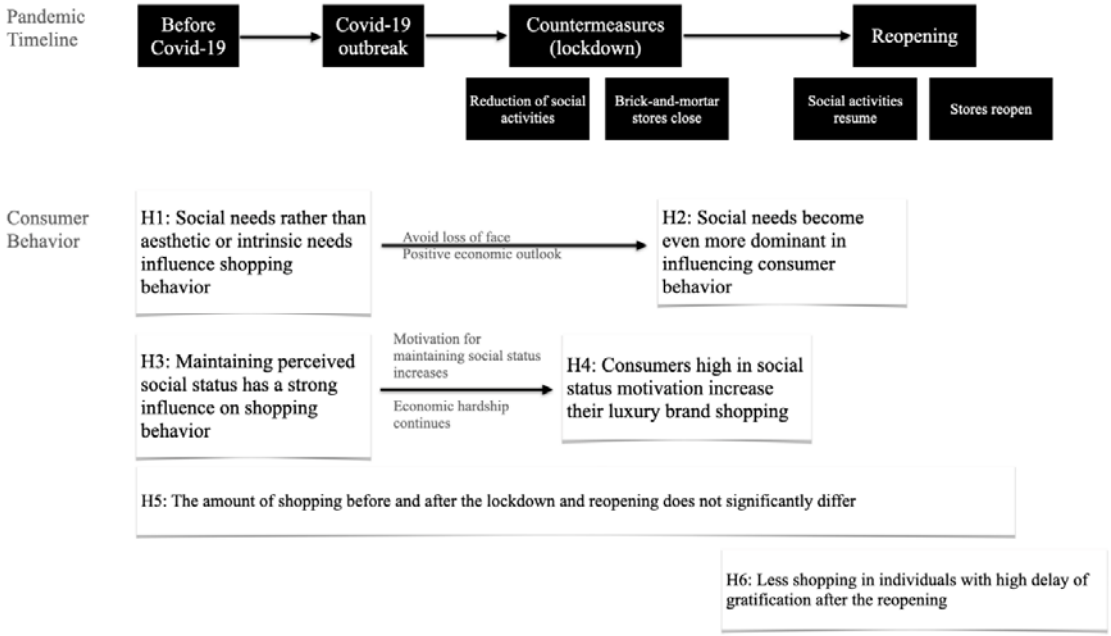

Figure 2.1 research framework related to pandemic developments

In this exploratory study the author is attempting to explore not only the shopping behavior before and after the pandemic but also possible connections to psychological concepts.

Some hypotheses such as H1 and H3 (Chinese consumer behavior is dominated by social needs and the motivation to maintain social status, respectively) enjoy fairly strong support in existing literature and should hold true in the “normal” (that is, non-pandemic) Chinese environment. These patterns were observed by other researchers before the pandemic and should also be found in our retrospective survey data from respondents reporting on their pre-pandemic shopping behavior.

Hypotheses H5 simply concerns the overall shopping amount and is interesting to explore in our subsample as Chinese shopping data (for instance Lannes & Zhang, 2020) suggests on the one hand a strong growth in domestic luxury shopping by Chinese consumers to record levels after the restrictions were lifted, while on the other hand it also emphasizes that the total amount of luxury fashion shopping of Chinese will be lower than in 2019. This apparent contradiction derives from the fact that – before Covid-19 – most of the luxury shopping done by Chinese was done in overseas shopping and tourism hubs. Given the almost total demise of tourism abroad for Chinese consumers in 2020 however, domestic consumption increased rapidly. It will be interesting to explore in our sample of Shanghai citizens what results these two drivers yield. Shanghai is China's strongest source of outbound tourists just ahead of Beijing and far ahead of other cities like Guangzhou, Shenzhen or Chengdu (Statista, 2021).

Based on the strong acceptance of online shopping channels and a continued high level of purchasing power plus the need to preserve face and maintain social status, the author believes that in the Shanghai sample the amount of purchased luxury goods before and after the pandemic has not significantly changed (H5).

The remaining three hypotheses (H2, H4, H6) explore relationships between shopping behavior and three psychological concepts (needs theory, social status theory, and delay of gratification respectively). Based on the literature review and understanding of how these three psychological concepts apply to consumer behavior settings, the author will look to confirm expected behavior outcomes with outcomes reported by the survey participants. H2 suggests that the pandemic increases an already existing dominance of social needs vs. Growth needs in Chinese shoppers, while H4 predicts an increase in luxury shopping behavior for a certain subset of the participants, that is the group with high motivation to maintain their perceived social status. H6 finally investigates a similar differential effect on the shopping behavior of participants high in the delay of gratification trait. As

discussed above, people will delay shopping as they perceive the post-pandemic situation still as economically challenging. Hence, the effect of less shopping in this group should be particularly prevalent in participants who rate their own post-pandemic economic situation as challenging.

3. Research methodology

The individual parts of this chapter will detail out the methodology of this study. The research design is an explorative study, using a judgmental sampling method to explore the changes in luxury shopping behavior and shopping attitude retrospectively before and after the pandemic lockdowns were enacted and investigates possible relationships to a number of psychological traits.

Sufficient evidence is provided to justify the selected methods for sampling, survey construction and data analysis. The author describes the research instrument and discusses the reliability and validity of the survey as well as the suggested data analysis methods to evaluate the hypotheses derived from the literature review.

3.1 Research design

The goal of this thesis is to better understand how consumers react to a crisis like the Covid-19 pandemic and how a number of variables such as age, gender, perceived own social status, price hikes in luxury items, individual need for reward, etc. are related to shopping behavior. The study is essentially explorative in nature and attempts to map the relationship between psychological variables, the shopping of luxury goods and demographic variables. The author has identified three major psychological concepts with a potential connection to brand shopping which are needs, social status and delay of gratification. Therefore, the research design process is also based on these three psychological concepts.

Chinese luxury consumers make a purchase motivated more by social reasons (explained for

instance by Wong & Ahuvia (1998) and Sun G. et al. (2014)). In the current study, the author reviews the existing studies about Chinese consumers purchase motivation and makes a comparison between before and after Covid-19 pandemic. Among relevant social factors, social status was identified as trait of major influence. Already Veblen (1899) argued that consumers usually invest in luxury goods as social capital. They wish to show their status and economic power. Further Kim et al. (2018) have split consumers' social status motivation into two constructs, status maintenance and status advancement. Therefore, the author wants to exam how important it is for Chinese consumers to maintain their social status by purchasing luxury goods and whether or not the Covid-19 pandemic has changed the motivation for luxury consumption. Finally, the relationship of shopping behavior to the delay of gratification trait is evaluated. Economic insecurities following the pandemic could be a powerful motivator for consumers to search for better, that is more reasonable shopping experiences and delay luxury shopping for the time after the pandemic.

In this study, the author has decided to employ a quantitative strategy by conducting a survey in order to test the proposed hypotheses. Because the current pandemic is unique in global spread, impact and the elicited public health response, the author also uses this opportunity to explore the data beyond the point of testing hypotheses derived from the literature.

In order to minimize the influence of cultural or ethnic variables as well as differences in which individual countries stand in the fight against the Covid-19 pandemic, the author decided to limit participants to people who are living in Shanghai at the time of the study. Shanghai citizens enjoy a high annual income. In 2019 Shanghai ranked number two following Beijing for annual per capita gross domestic product among different cities in mainland China (Statista, 2021). That means, luxury goods are relatively affordable to Shanghai residents. In addition, Shanghai is China's strongest source of outbound tourists (Statista, 2021). Therefore, Shanghai is considered a proper location and Shanghai residents are considered a proper target for this research.

3.2 Choice of research instrument and sampling method

Investigating the various traits, shopping behavior and attitudes, the author decided for an online survey as the best available method. According to Kevin (2005), online survey research can have the following benefits:

a) it allows access to unique populations, in this study, gaining access to people who live in Shanghai can be achieved via the internet and smartphones.

b) online surveys can save time for researchers. In this case, the survey has been conducted over a period of approximately two weeks in March 2020.

c) online surveys can help researchers to save costs by eliminating the cost for paper and physical survey administration.

Therefore, all data including demographic data, psychological traits, and shopping behavior are self-reported data of survey participants. Purchasing data is collected via retrospective self-reports of consumers for two points in time, before and after the lockdown.

3.3 Survey participants

As mentioned above, the target population consists of people who are living in Shanghai because Shanghai citizens have sufficient purchasing power and regional attitudes towards shopping can be somewhat controlled through this limitation.

Because we are targeting answers related to luxury shopping behavior, participants need to have a history of having shopped at any luxury fashion shop over the last two years. To determine the sample size, this study can be regarded as one that is relevant to a test marketing study. Nunan et al. (2020) have suggested that for test marketing studies, the usual sample size range is 300-500 with a minimum of 200. As a result, responses from 259 participants were obtained. Roughly one fifth of the participants (54 people) did not buy any luxuries before, during or after the pandemic and were hence

omitted from the final data. This left a data set of 205 respondents with an almost perfect split between males (103) and females (102). For reference, the gender distribution among the omitted participants was almost similarly even with 24 females and 28 males (two of the omitted participants did not provide their gender information).

All 205 participants provided information about their age group. The age was distributed as 60 persons between 18 to 29, 49 persons between 30 to 39, 57 persons between 40 to 49, 31 persons between 50 to 59 and 8 persons older than sixty. That means that some eighty percent of respondents were between 18 and 49 years – a distribution expected from the literature review.

In regard to sampling techniques, the author has decided to employ judgmental sampling. Population elements have been selected based on some variables such as whether or not she/he has luxury goods purchase history which is asked in survey.

3.4 Survey construction and operationalization of theoretical concepts

The survey was devised in English in the beginning, then translated into Chinese. The survey in Chinese language was distributed randomly to participants who live in Shanghai through a Chinese survey platform (Wen Juan Xing). The survey platform was free of charge and everyone could have access to it. Participants completed the survey anonymously and the data collection phase lasted approximately two weeks. In order to enhance the response rate, a monetary incentive was provided. One Yuan (approx. USD 15 cents) was offered for each response. From start to finish, participants needed roughly 6 to 7 minutes to complete the survey.

The survey consists of the following parts (see appendix for the survey content in detail):

1) short introduction of the research topic to the survey participants

2) participants' demographic and background data (Q1 to Q4)

3) participants' luxury shopping behavior and attitudes towards luxury shopping and brand price

policies (Q5 and Q8)

4) participants' perceived impact of the pandemic on economic and psychological well-being (Q6 and Q7)

5) questions exploring the influence of psychological traits on (changes in) shopping behavior (Q9 to Q13)

6) a bonus question to see what a specific respondent needs to happen to stop shopping luxury shopping (Q14)

In the first part of the survey, consent for participation and consent for the use of the reported individual data were asked and the applicable privacy protection policy was presented. Then the author provided a definition of luxury goods for the purpose of the survey.

The demographic information collected in the second part of the survey included questions about age group, gender identification, employment status, and education levels. The third part included questions to assess the respondent's history of luxury goods purchases and his or her general attitudes towards luxury consumption. In the fourth part, the author asked for the perceived influence of the pandemic on the respondents' individual economic and psychological well-being. The data level for the demographic and background data were nominal and ordinal, grouping respondents according to widely used groups. The data level for shopping attitudes was nominal, the data for shopping history ordinal and understanding for brand price policy used a Likert scale. Impact of the pandemic was assessed using Likert scales. All Likert scales throughout the survey employed the same five intervals in order to minimize confusion for respondents. An overview for these three parts including the respective numbers of participants or scale average is presented in the tables (Table 3.1, Table 3.2, Table 3.3) below. For all the following tables note that the respective content of the questions was summarized and shortened to the essential meaning. For the actual phrasing of each question in Chinese and English, please refer to the appendix.

Table 3.1 Demographic and background variables in the survey

Variable	Data level	Expressions	Number of respondents
Q1: Age group	ordinal	18 – 29	60
		30 – 39	49
		40 – 49	57
		50 – 59	31
		>60	8
Q2: Gender	nominal	Male	103
		Female	102
		Unidentified	0
Q3: Education level	ordinal	No schooling completed	0
		Elementary school completed	0
		Middle school completed	8
		High school graduate, diploma or equivalent	39
		Bachelor degree	110
		Master degree	46
		Doctorate degree	2
Q4: Current occupation	nominal	Full-time student	12
		Employed	138
		Self-employed	20
		Unemployed	14
		Retired	10
		(missing)	11

As stated in the introduction to the methodology, the final 205 participants were evenly distributed regarding their gender and had the skew towards younger age groups expected from the literature review and former studies. Not unexpected was also the low number of participants with only basic educational degrees. Against the backdrop of the competitive Chinese society with a strong belief in the value of education, it was not surprising to find no participants with only elementary school completed or even no schooling. Participants holding a bachelor degree, the equivalent of four years

of university education, were the largest group with 110 persons followed by participants with a master's degree (46 persons). In regard to employment status, the absolute majority of participants worked as employees with other groups like students, self-employed, unemployed or retired each making up less than ten percent of the sample.

Table 3.2 Shopping behavior and attitudes towards brand price policies

Variable	Data level	Expressions	Number of respondents/ average score
Q5.a: bought luxury product during pandemic	nominal	Yes no	205 0
Q5.b: purchased how many luxury products after lockdown	ordinal	None 1 – 5 6 – 10 11 – 20 >20 (missing)	0 142 51 6 5 1
Q5.c: purchased how many luxury products before pandemic	ordinal	None 1 – 5 6 – 10 11 – 20 >20 (missing)	0 82 54 55 13 1
Q8: luxury price hikes after pandemic are understandable	interval (Likert)	1 to 5 (strongly agree to strongly disagree)	2.9 (median = 3)

The above data shows a strong majority of respondents shopping between one and ten luxury items before the pandemic and after the lockdown was over. This was particularly pronounced for the time after the lockdown. In regard to showing understanding for the price hike after the pandemic, the average of 2.9 (median = 3) reflected the even distribution of answers (strongly agree: 36, agree: 47, neutral: 54, disagree: 40, strongly disagree: 29).

Table 3.3 Participants' perceived impact of the pandemic

Variable	Data level	Scale	Average score
Q6.a: negative economic impact during pandemic	interval (Likert)	1 to 5 (strongly agree to strongly disagree)	2.6 (median = 2) Missing: 1
Q6.b: negative economic impact at time of survey (after pandemic)	interval (Likert)	1 to 5 (strongly agree to strongly disagree)	2.8 (median = 3) Missing: 4
Q7.a: negative emotional impact during pandemic	interval (Likert)	1 to 5 (strongly agree to strongly disagree)	2.7 (median = 3)
Q7.b: negative emotional impact at time of survey (after pandemic)	interval (Likert)	1 to 5 (strongly agree to strongly disagree)	2.6 (median = 2) Missing: 4

Answers to the economic and psychological burden during and after the pandemic show that participants in the sample overall felt both, an economic and psychological burden during and also after the pandemic.

Questions 9 to 13 attempt to assess the respondents' status on the three psychological theories in question (need theory, status theory, delay of self-gratification theory) before and after the pandemic. Questions include the purpose of luxury goods purchases, the level of social needs or growth needs a person has, the perception of their own social status, what a person believes shopping luxury items can do for his or her social status and the degree of self-gratification a person has.

The author used for all the answer formats the same Likert scale as above (5 steps, strongly disagree to strongly agree from 1 to 5 respectively). Hence information about the data level and scale is omitted from Table 3.4 below.

Table 3.4 Assessing the psychological traits in question

Psychological trait	Question: purchasing luxury products because (of)…	Average score (median)	Missing
Growth needs (before pandemic)	Q9.a: unique and good quality	2.1 (2)	1
	Q9.c: make me look better, make me happy	2.7 (3)	2
	Q9.f: luxury goods represent beauty	2.9 (3)	2
	Q9.g: culture and story behind the product	2.3 (2)	2
Social needs, (before pandemic)	Q9.b: all my friends/peers do	2.8 (3)	1
	Q9.d: fashion trends in media	2.4 (2)	2
	Q9.e: friends' direct recommendation	2.8 (3)	1
	Q9.h: stand out among friends	2.7 (3)	2
Social status (before pandemic)	Q9.i: imagined friends' recognition of me	2.8 (3)	1
	Q9.j: make me count in my social world	2.5 (2)	2
	Q9.k: not buying diminishes my social standing	3.2 (3)	2
Growth needs (after pandemic)	Q10.a: unique and good quality	2.5 (2)	1
	Q10.c: make me look better, make me happy	2.8 (3)	2
	Q10.f: luxury goods represent beauty	2.9 (3)	2
	Q10.g: culture and story behind the product	2.9 (3)	2
Social needs (after pandemic)	Q10.b: all my friends/peers do	2.4 (2)	1
	Q10.d: fashion trends in media	2.8 (3)	2
	Q10.e: friends' direct recommendation	2.5 (2)	1
	Q10.h: stand out among friends	2.9 (3)	3
Social status (after pandemic)	Q10.i: imagined friends' recognition of me	2.6 (2)	1
	Q10.j: make me count in my social world	3.0 (3)	2
	Q10.k: not buying diminishes my social standing	3.0 (3)	2
Delay of self-gratification	Q11: general shopping urge after pandemic has increased	2.3 (2)	0
	Q12.a: purchasing luxury goods after pandemic compensate for pandemic hardships	2.9 (3)	2
	Q12.b: all my life shopping compensated me for experienced hardships	2.8 (3)	3
	Q12.c: shopping after tough times makes me happy	2.2 (2)	0
	Q13: indulging in luxury shopping after the pandemic makes me happy	2.4 (2)	2

While we will discuss the findings regarding the psychological traits later, a first look at the table above already reveals that respondents in generally did tend to avoid extreme answers (average scores between 2.1 and 3.2 and median scores between 2 and 3).

Finally, the author asked a bonus question intended to understand under what circumstances a respondent would stop shopping luxury brands. This question used the same 5-step Likert scale as above for the first three sub-questions and an open format for the final two sub-questions. The open answers were designed to inquire individual's attitudes towards lockdown reflecting on luxury consumption. Respondents were allowed to enter their answers without restrictions. Details in Table 3.5 below.

Table 3.5 Bonus question, brand purchasing persistence.

Question: I will stop buying luxury goods because (of) …	Average score (median), missed
Q14.a: price increases although increase depends on raw materials' price increase Q14.b: loss of unique character, everyone owns it Q14.c: brand lowers price and becomes affordable for everyone	 2.9 (3), missing: 2 2.6 (2), missing: 2 2.3 (2), missing: 3
Free format questions:	Number of valid responses
Q14.d: inability to go to physical stores during lockdown made me feel … Q14.e: even when buying during pandemic, not being able go out and show it to others made me feel ...	184 Positive: 43 Negative:67 Neutral: 74 184 Positive: 53 Negative: 62 Neutral: 69

Analyzing the missed or blank answers revealed that almost all of the missed data could be traced back to participants number 25 and 65. Hence, the data of these two participants were also omitted from any further calculation from this point onward. From the average score and median of each bonus question, there is a tendency that respondents may stop buying luxury goods when they become affordable for most of consumers. Additionally, they have fairly low resistance against price hike due

to the increase in cost of raw material and labor. In regard to answers to the free format questions, 184 survey participants have responded. Although it is tricky to analyze the answers, the author classified the answered into three categories overall: positive attitude, negative attitude, neutral. For both questions, we can see that only approximately one third of the respondents hold a negative attitude. Lockdown indeed had some negative influences on consumers, but the impact seems not severe enough to change most of consumers' mentality.

3.5 Survey quality control

Although explorative in nature, the author of this study paid careful attention to construct a reliable and valid survey instrument. In this section the issues of biases, reliability and validity of the survey are discussed.

Bhattacherjee (2012) has identified five major biases in survey research such as non-response bias, sampling bias, social desirability bias, recall bias and common method bias. For the response enhancement and reduction of non-response bias, the author decided to provide monetary incentive to respondents, i.e. 1 RMB (approx. USD 15 cent) for a person to participate in the survey. As a result, the overall response rate was very satisfying. Not counting the free format bonus questions which usually receive fewer answers, among 259 participants, 247 answered all questions (responsive rate: 95%). If answers to free format are taken in account, 209 respondents have answered all questions (responsive rate: 81%). Besides monetary incentives, emphasizing anonymity and confidentiality likely have contributed to a high response rate.

In regard to sampling bias, the author acknowledges that the survey in this study was presented as an online survey therefore automatically excluding people without internet access or not reachable through the online survey platform.

Limiting the sampling to people of a certain region, that is the greater Shanghai area, also has

implications for the validity of the results. This issue will be re-visited in the discussion of the results. Other than the controlled region, the survey was presented randomly to people accessible through the Wen Juan Xing online platform.

An additional and important limitation is the use of retrospective answers. Survey respondents were asked to provide answers about their past purchasing history and emotional variables before end of the lockdown. There is the distinct possibility that respondents may remember wrongly, whether he or she purchased luxury goods, their approximate number or had a certain mindset before the lockdown ended. Attempting to limit the recall bias and help respondents identify their memory correctly, a clear definition of luxury goods was provided and the psychological traits were operationalized with several simple and easy-to-understand questions.

Because this study is looking at luxury goods purchasing behavior, attitudes and correlations and influences of psychological traits, the data of respondents who stated that they had not purchased any luxury items over the last two years, that is before, during and after the pandemic, was discarded from further analysis. Similarly, the data of two respondents, No. 47 and No. 81, were dismissed as they failed to answer before or after pandemic shopping questions. These changes led to a total data sample of 201 participants.

Finally, before the execution of the real data collection, a pilot test was conducted. Bhattacherjee (2012) argues that pilot testing is crucial for a research process because it can not only help find out potential problems in the research design but it also can ensure the validity and reliability of the study. Before the survey was launched to the public, ten volunteers were recruited to participate in the pilot testing. The purpose of this test was to help the author get proper feedbacks of survey questions, format, and layout. The test was designed to improve the overall quality of the survey. Some minor errors have been pointed out by volunteers after the pilot testing conduction. For instance, a statement involving perceived social status appeared confusing to one of the volunteers. Modifications were made

accordingly. Moreover, a typo was reported as well. All suggestions have been taken into consideration and the improvements have been made accordingly. The final versions of the survey in both Chinese and English are available in the appendix.

The reliability of the test questions for the psychological constructs was assessed using Cronbach's α. Questions referring to before and after the lockdown were assessed separately leading to the following Table 3.6 of reliability measures.

Table 3.6 Cronbach's α for the psychological traits in question

Psychological trait	Including answer from questions	Cronbach's α
Growth needs (before pandemic)	Q9.a, Q9.c, Q9.f, Q9.g	0.83
Social needs (before pandemic)	Q9.b, Q9.d, Q9.e, Q9.h	0.88
Social status (before pandemic)	Q9.i, Q9.j, Q9.k	0.88
Growth needs (after pandemic)	Q10.a, Q10.c, Q10.f, Q10.g	0.84
Social needs (after pandemic)	Q10.b, Q10.d, Q10.e, Q10.h	0.90
Social status (after pandemic)	Q10.i, Q10.j, Q10.k	0.89
Delay of self-gratification general	Q12.b, Q12.c, Q13	0.84
Delay of self-gratification after pandemic	Q11, Q12.a	0.84

The Cronbach's α values for all the above scales in the survey regarding the psychological traits are quite satisfying. Generally, values above 0.80 are regarded as good, values above 0.90 as excellent. While only one scale ranks excellent in internal consistency according to this understanding, all others are also well above 0.80.

While the internal consistency values proved satisfying, testing the above aggregated scale score distributions for parametric/non-parametric distribution revealed that all the distributions are non-parametric. This of course has an influence on what tests to use for calculating results. Table 3.7 below provides more details on the distribution parameters for each score.

Table 3.7 Distribution parameters for the psychological traits in question

Psychological trait	Skewness	Kurtosis	K-S D (p-value)
Growth needs (before pandemic)	0.83	-0.28	D = .21 (p < .00001)
Social needs (before pandemic)	0.66	-0.84	D = .19 (p < .00001)
Social status (before pandemic)	0.42	-1.12	D = .18 (p < .00001)
Growth needs (after pandemic)	0.63	-0.48	D = .15 (p = .00015)
Social needs (after pandemic)	0.55	-1.06	D = .19 (p < .00001)
Social status (after pandemic)	0.41	-1.15	D = .20 (p < .00001)
Delay of self-gratification general	0.41	-1.15	D = .20 (p < .00001)
Delay of self-gratification after pandemic	0.54	-0.88	D = .19 (p < .00001)

All of the score distributions clearly and very significantly deviate from normal distributions.

3.6 Ethical issues

In regard to ethical issues, the following potential issues were considered:

1) the conducted survey is harmless; no unfavorable consequences are likely to appear. An informed consent form is present in the beginning of the survey, describing the contents and purpose of the study. Voluntary participation is highly emphasized as well. Participants have the freedom to choose whether or not to answer the survey and, if necessary, withdrawing from the study at any time is possible.

2) the survey is anonymous and confidential. Privacy violation is considered one of the major ethical issues in online researches (Bhattacherjee, 2012). However, in this study participants are fully informed that no specific individual data will be used and the collected data will be well protected.

3.7 Data analysis

From the literature review a number of hypotheses were conceived. In this section, the author provides a short overview of the suggested tests and analyses.

Hypothesis 1 and 2 concern the question, whether Chinese luxury product customers are motivated by social needs or growth needs (H1), and whether this has changed after the pandemic (H2). Although Hypothesis H1 sounds very straightforward, the appropriate statistical testing is somewhat complicated. While it is simple to calculate the average social needs and growth needs score for the respondents, it is not possible to simply use e.g. a t-test to compare the two means. As the study is looking for the association of two independent variables (social needs vs. growth needs) with the dependent variable (shopping behavior, ordinal data), an ordinal regression analysis can be used to understand the incremental impact of each of the two independent variables. For looking at changes from before and after the pandemic in the social and growth needs, the ordinal regression needs to be run with the data from before and after the pandemic to see whether social needs have a more profound influence now. Additionally, it should also be calculated, whether the respondents' social or growth needs motivation itself has changed. This can be calculated simply by running a Wilcoxon Test.

For the third hypothesis (H3) regarding the influence of social status motivation on shopping behavior, a Spearman rank-order correlation coefficient can be calculated between social status motivation and shopping behavior for before and after the data. For H4 we need to compare this correlation between social status and shopping behavior before and after the lockdown. Additionally, again, any change in the respondents' social status motivation should be determined with a Wilcoxon Test.

The final two hypotheses (H5 and H6) regard the influence of delay of gratification. H5 simply compares the shopping behavior before and after the pandemic. That is a simple comparison between the data at the two times in the same sample, hence a Wilcoxon Test can be used. For H6 we are going

to take a more detailed look and divide our participants along the general delay of self-gratification scale (that is the scale derived from combining Questions Q12.b, Q12.c, Q13). We will use the participants in the lowest and highest quartile and compare whether their shopping behavior differs significantly. As these are two independent groups we will use the Mann-Whitney U-Test for this.

Besides the main hypotheses, the survey study explores a number of other sub-questions. One is simply, whether consumers have stopped or decreased shopping luxury items. This can be calculated by comparing the average number of purchased items before and after the pandemic. As the purchasing behavior is ordinal data, a Wilcoxon Test is the method of choice.

For the calculations of all results, the statistics tests from https://www.socscistatistics.com/tests/chisquare2/default2.aspx were used.

4. Results

Following up with the analysis as outlined in the methodology, the author first looks into the hypotheses and then adds some additional analyses for a better understanding of people's luxury consumption before and after the pandemic.

4.1. Influence of social needs and growth needs on the luxury product shopping of Chinese consumers

The first of our hypotheses concerns the influence of social or growth needs and whether either of them is stronger in predicting the shopping behavior. We use the consolidated scores for the psychological constructs as depicted in Table 3.6 which also shows appropriately high internal consistency values.

Table 4.1 Correlations between social and growth needs with shopping behavior respectively, before pandemic

	Spearman Rank Order Correlation with shopping behavior (before pandemic), p-value is 2-tailed
Social needs (before pandemic)	-0.12, p = 0.08
Growth needs (before pandemic)	-0.15, p = 0.04*

Table 4.1 shows that only growth needs are connected to the shopping behavior in the sense that higher scale values in the growth needs scale are correlated to shopping fewer items. In other words, the stronger a Chinese consumer is oriented towards internal (=growth) needs, the fewer brand items he or she has been shopping before the pandemic. The correlation between social needs and shopping behavior fails to reach statistical significance at the 5% level, however a trend can be observed ($p < 0.10$).

Running a logistic regression analysis for the before- pandemic scenario, that is using social and growth needs before pandemic as predictors and shopping behavior before pandemic as the variable to be explained, the overall regression shows a right tailed distribution with $\chi^2 = 10.56$ and a p-value of 0.10, which is non-significant even among the probability levels accepted for explorative studies ($p = 0.10$). Hence the logistic regression model does not add explanatory value.

How does the situation for the post-pandemic situation look like? The following Table 4.2 summarizes the individual correlations between social and growth needs on the one side with shopping behavior on the other side.

Table 4.2 Correlations between social and growth needs with shopping behavior respectively, after pandemic

	Spearman Rank Order Correlation with shopping behavior (after pandemic), p-value is 2-tailed
Social needs (after pandemic)	-0.11, p = 0.14
Growth needs (after pandemic)	-0.06, p = 0.38

Both correlations in the post-pandemic scenario are not statistically significant. Therefore, we

would also not expect the regression model to add additional value. The overall ordinal regression model again shows a right tailed distribution albeit with a much lower χ^2-value ($\chi^2 = 3.77$) and a p-value of 0.71, clearly non-significant and confirming the expectation from looking at the individual correlations, that is, the regression model does not provide additional explanatory value.

The author decided to explore Hypothesis 2 on a more restricted sample of participants, namely those that reported strong emotional or economic impact during or after the end of the lockdown. To that end the total sample data was ordered from highest to lowest score along all the four questions concerning the emotional and economic impact and for the top quartile of each of these groups the correlation between social needs and growth needs and the shopping behavior was calculated in the table below. The removal of the answers of three respondents who did not include answers only to the economic and psychological impact questions was excluded at this step, resulting in a total of 200 respondents, hence the number of participants in the upper quartile were 50 persons.

Table 4.3 Correlations between social and growth needs after the lockdown with shopping behavior in the top quartile (n = 50) of the sample sorted along economic and emotional impact during and after the pandemic.

Upper quartile of...	Social needs/growth needs	Spearman Rank Order Correlation with shopping behavior (after pandemic), p-value
Economic impact during pandemic	Social needs post-pandemic	-0.30, p = 0.04*
	Growth needs post-pandemic	-0.27, p = 0.05
Economic impact post-pandemic	Social needs post-pandemic	0.12, p = 0.42
	Growth needs post-pandemic	-0.02, p = 0.88
Emotional impact during pandemic	Social needs post-pandemic	-0.06, p = 0.66
	Growth needs post-pandemic	0.04, p = 0.80
Emotional impact post-pandemic	Social needs post-pandemic	0.12, p = 0.40
	Growth needs post-pandemic	0.16, p = 0.27

The above Table 4.3 shows that largely the influence of experienced hardship, emotional or economic, did little to change the association between social and growth needs on the one hand and shopping behavior on the other. A notable exception was the economic impact during the crisis. Higher scores in social and growth needs are associated with shopping fewer luxury items in the group of people who experienced either strong emotional or strong economic impact during the crisis.

As outlined in the methodology section, in order to be able to better interpret the results, also the differences in the respondents' social and growth needs before and after the pandemic needs to be tested for significant differences.

First of all, in order to test whether the data is parametric, Kolmogorov-Smirnov tests have been

run. The result show that none of the data distributions is parametric. Because we compare non-parametric data for paired samples, a Wilcoxon test is the appropriate method. The results (Table 4.4) are as follows:

Table 4.4 Statistical comparison between the before and after scores of respondents for both social and growth needs

	Before Mean rank (sum of ranks)	After Mean rank (sum of ranks)	Wilcoxon (p-value)
Social needs	77.88 (5763)	63.40 (4248)	Z = -1.58 (p = .11)
Growth needs	61.68 (2097)	84.98 (10623)	Z = -7.44 (p < 0.01*)

The Wilcoxon test shows a very clear statistical difference for growth needs, that is in this sample of survey participants the growth needs are stronger in the post-pandemic setting than in the before-pandemic setting. For social needs on the other hand the difference was non-significant, hence social needs did not visibly change from before to post-pandemic.

4.2. Influence of social status motivation on luxury product shopping behavior of Chinese consumers

For the third hypothesis (H3) regarding the influence of social status motivation on shopping behavior Table 4.5 below shows the results for the Spearman rank-order correlation between the two variables social status motivation (interval scale) and shopping behavior (rank order) for before and after the pandemic.

Table 4.5 Spearman-rank order correlations between social status motivation and shopping behavior, before and after the pandemic

	Social status motivation Mean (std.)	Shopping behavior Median (range)	Correlation coefficient R
Before pandemic	2.80 (1.16)	2 (4)	R = -0.25 ($p < 0.01$)*
After pandemic	2.85 (1.17)	1 (4)	R = -0.07 ($p = 0.36$)

The calculation of the correlations shows a highly significant correlation between social status motivation and shopping behavior in the before pandemic situation, however not in the post-pandemic scenario. As the significant correlation was negative in value, it needs to be interpreted to mean that higher social status motivation was associated with buying fewer luxury products before the pandemic.

Hypothesis H4 would have evaluated whether the strength of the correlation between social status motivation and shopping behavior is stronger before or after the pandemic. Because there is no significant correlation between these two variables in the post-pandemic situation, there is no need to compare the strengths of correlations.

A pair of Kolmogorov-Smirnov tests have been run to test whether the data set of social status before and after pandemic are normally distributed. The results show that neither of the data are parametric.

For explorative reasons the author calculated whether respondents showed a statistical difference in their social status motivation before and after the pandemic (Wilcoxon test) and also explored whether original social status motivation was correlated to post-pandemic shopping behavior (Spearman-rank order correlation). These results are shown in Table 4.6 and 4.7 below.

Table 4.6 Statistical comparison between the before and after scores of respondents for social status motivation

	Before Mean rank (sum of ranks)	After Mean rank (sum of ranks)	Wilcoxon (p-value)
Social status motivation	66.20 (4237)	69.63 (4944)	Z = -0.78 (p = 0.43)

Table 4.7 Spearman-rank order correlations between social status motivation before and shopping behavior after the pandemic

	Social status motivation Mean (std.)	Shopping behavior Median (range)	Correlation coefficient R
Before pandemic	2.80 (1.16)	1 (4)	R = -0.14 (p = 0.04)

The above two tables show that our respondents did not experience (or at least not report) a difference in their social status motivation before and after the pandemic. Their original social status motivation however was statistically correlated with shopping behavior after the pandemic, although the coefficient was clearly smaller than in the correlation to shopping before the pandemic. The direction of the correlation was the same, that is higher social status motivation was associated with less luxury product shopping.

Again, as for calculations in section 4.1, it seems worth to take an explorative look into how the associations look like in the groups that felt most heavily impacted emotionally or economically during and after the pandemic. Table 4.8 summarizes the results for the top quartile of the respective impact in regard to correlations between social status motivation and shopping behavior after the pandemic.

Table 4.8 Correlations between social status motivation after the lockdown with shopping behavior in the top quartile (n = 50) of the sample sorted along economic and emotional impact during and after the pandemic.

Upper quartile of...	Independent variable	Spearman Rank Order Correlation with shopping behavior (after pandemic), p-value is 2-tailed
Economic impact during pandemic	Social status motivation, post pandemic	0.09, p = 0.52
Economic impact post-pandemic	Social status motivation, post pandemic	0.06, p = 0.66
Emotional impact during pandemic	Social status motivation, post pandemic	-0.01, p = 0.96
Emotional impact post-pandemic	Social status motivation, post pandemic	0.15, p = 0.29

The table above shows that also in those subgroups of the sample (top quartile, n = 50) that felt the strongest emotional or economic impact during or after the pandemic no significant correlations existed between social status motivation and post-pandemic shopping behavior. This is an important finding as it contradicts much of the current literature stating the importance of social status motivation in shopping luxury products among Chinese customers.

4.3. Delay of gratification and shopping behavior

The final set of hypotheses (H5 and H6) regard the influence of delay of gratification. Hypothesis H5 simply compares the shopping behavior before and after the pandemic. Using a Wilcoxon Test tells us, whether the data distribution is significantly different, and a Spearman rank order test reveals, whether respondents show internal consistency so to speak. That is, the difference of distribution test can point out whether the group of respondents as a group has moved to shop more or less after the pandemic, while the Spearman rank order test shows, whether on an individual level the shopping

behavior has relatively changed. Table 4.9 shoes the results of Wilcoxon test.

Table 4.9 Evaluating shopping behavior differences on group level (Wilcoxon Test) before and after pandemic

	Before pandemic Median (range)	After pandemic Median (range)	W-value
Shopping behavior	2 (4)	1 (4)	W = 198 ($p < 0.01$*)

Given the large sample size (n = 201) the distribution is approximately normal, so besides the W value also the Z-value should be considered. The Z-value of –8, $p < 0.01$, confirms the above calculation meaning that the group of participants reported significantly less luxury shopping after the pandemic. Was this a result from each person reporting less shopping than before or did the group shopping behavior change in some other way?

Table 4.10 Evaluating the individual correlation between shopping behavior before and after the pandemic using a Spearman-rank order correlation

	Before pandemic Median (range)	After pandemic Median (range)	R-value
Shopping behavior	2 (4)	1 (4)	R = 0.50 ($p < 0.01$*)

Table 4.10 summarizes the results of Spearman-rank order correlation. The correlation shows a medium-strong value of 0.50 (highly significant) indicating that individuals shopping more items before the pandemic also shopped more items after the pandemic. Because the correlation is only medium-strong it also indicates, though, that some respondents switched from shopping larger numbers of luxury items before the pandemic to shopping fewer items after the pandemic and vice versa.

For H6, the detailed look in whether delay of self-gratification had an influence on shopping behavior, as suggested in the methodology, we use data from the respondents in the lowest and highest

quartile on the general delay of self-gratification scale and investigate, first whether their shopping behavior (Mann-Whitney U-Test) differs, second, whether it changed before and after the pandemic and, if yes, whether this change happened in an individually consistent way (correlation). The lowest quartile has an average delay of self-gratification (DSG) of 1.50 (std. = 0.28), the highest quartile averages at 3.88 (std. = 0.64). Clearly there is a considerable spread in the DSG scores among the participating individuals. As a first analysis Table 4.11 below shows the correlation between general DSG scores and DSG scores after the pandemic for these subsets.

Table 4.11 Evaluating the individual correlation (Spearman's Rho coefficient) between general DSG and post-pandemic DSG scores for the two quartiles

	General DSG Median	After pandemic DSG Median	Correlation
High general DSG group	4.00	4.00	R = 0.57 (p < 0. 01*)
Low general DSG group	1.67	2.00	R = 0.27 (p = .055)

In the high DSG group the data shows a highly significant, medium-strong correlation between general DSG score and the post-pandemic DSG score suggesting that in this group, the delay of self-gratification has not changed (much) with the pandemic. Individuals that were able to delay self-gratification before the pandemic were also able to do so after the pandemic and vice versa. For the low DSG group however that correlation was much weaker and significant only at the explorative level of 10%. This indicates for the low general DSG group, that some who were not able to delay self-gratification before the pandemic were able to do so after the pandemic and vice versa. Table 4.12 and 4.13 below shows the actual correlation with the reported shopping behavior before and after the pandemic separated for these two groups.

Table 4.12 Shopping data and correlations with general DSG scores for the high and low DSG groups

	Shopping behavior before		Shopping behavior after	
	Average (range)	Correlation	Average (range)	Correlation
High general DSG group	2 (4)	R = 0.37 (p <0.01*)	1 (4)	R = 0.17 (p = 0.25)
Low general DSG group	2 (4)	R = 0.07 (p = 0.65)	1 (4)	R = 0.20 (p = 0.16)

Table 4.13 Shopping data and correlations with post-pandemic DSG scores for the high and low DSG groups

	Shopping behavior before		Shopping behavior after	
	Average (range)	Correlation	Average (range)	Correlation
High DSG post pand.	2 (4)	R = 0.35 (p = 0.01*)	1 (4)	R = 0.07 (p = 0.64)
Low DSG post pand.	2 (4)	R = 0.24 (p = .084)	1 (4)	R = -0.06 (p = 0.66)

The above data shows that a strong, and statistically significant, correlation exists mostly between delay of gratification scores in the high DSG group for general and post-pandemic DSG scores with the shopping behavior before the pandemic. None of the correlations between general or post-pandemic DSG scores and the post-pandemic shopping behavior was significant indicating that delay of gratification might have little to say about post-pandemic shopping behavior. In regard to pre-pandemic shopping behavior however, three out of the four correlations were statistically significant; this includes the correlation in the low general DSG group, if statistical significance is set at the acknowledged level of $p < 0.10$ for explorative studies.

4.4 Demographic variables and shopping behavior

Besides looking at evaluating the main hypotheses of this study, the author also uses this opportunity to explore the data for other trends. As reviewed in the literature, demographic variables are associated with shopping behavior for luxury goods. The assumption from the literature is that females are more likely to shop luxury fashion items than males and that the age group between 30 to 40 are the strongest consumers.

Table 4.14 and 4.15 below summarize the results for the demographic variables in the reported pre-pandemic and post-pandemic scenario.

Table 4.14 Shopping data and gender in the pre- and post-pandemic scenario (median scores)

	Pre-pandemic	Post-pandemic	Change sign. (Wilcoxon)?
Females (n = 99)	2	1	Z = -5.44, p < 0.01*
Males (n = 102)	2	1	Z = -6.00, p < 0.01*
Groups differ (Mann-Whitney U)?	U = 48, p = 0.59	U = 50, p = 0.87	

*Z value reported as analysis suggested close enough to normal distribution

Both groups, males and females, show a tendency to shop less after the pandemic is believed to be over. Based on this table the author evaluated, whether the scores for males and females differed in the pre- or post-pandemic scenario (independent groups, non-parametric, hence, Mann-Whitney U-tests) and whether there was a difference inside each group (males and females) between pre- and post-pandemic shopping behavior (dependent groups, non-parametric, hence, Wilcoxon Test). The results show a very clear pattern in the sense that gender was no distinguishing criterion, neither in the pre- nor post-pandemic scenario. The reported shopping behavior of female and male Chinese luxury shoppers did not differ in this sample. However, there was a clear distinction in the pre- and post-pandemic shopping behavior. Both males and females reported a highly significant decreased luxury shopping behavior after the lockdown ended and presumably the pandemic was under control.

Table 4.15 Shopping data and age groups in the pre- and post-pandemic scenario (median scores)

	Pre-pandemic	Post-pandemic	Wilcoxon, sign.
18-29y.o. (n = 58)	1	1	W = 37.5, p < 0.05 *
30-39y.o. (n = 48)	2	1	W = 0, p < 0.1
40-49y.o. (n = 56)	2	1	Z* = -5.00, p < 0.01
50-59y.o. (n = 31)	2	1	W = 0, p < 0.01*
>60y.o. (n = 8)	2.5	1	n.a.
Kruskal-Wallis	H = 26.08, p < 0.01*	H = 5.0, p = 0.29	

*Z value reported as analysis suggested close enough to normal distribution

Not surprisingly Table 4.15 shows the same pattern in terms of reported pre- and post-pandemic luxury shopping behavior. In all age groups luxury consumption reported for the time after the end of the lockdown was significantly lower than the time before the pandemic. For the highest age group (>60y.o.) the small sample size made calculation of a difference score impossible. If anything, the data for the small sample does not suggest an opposing trend. For testing differences in the pre- or post-pandemic scenario among the different age groups, the author employed a Kruskal-Wallis Test as non-parametric alternative for a one-way ANOVA. For the pre-pandemic age groups, the Kruskal-Wallis test revealed a highly significant difference among the groups. Doubling down on the mean ranks it turned out that the shopping behavior for the youngest age group differed significantly from the shopping behavior of all other age groups (for the oldest age group the small sample size again yielded no valid score). No other age group differences were revealed. The following graphic (Figure 4.1) depicts this pattern clearly.

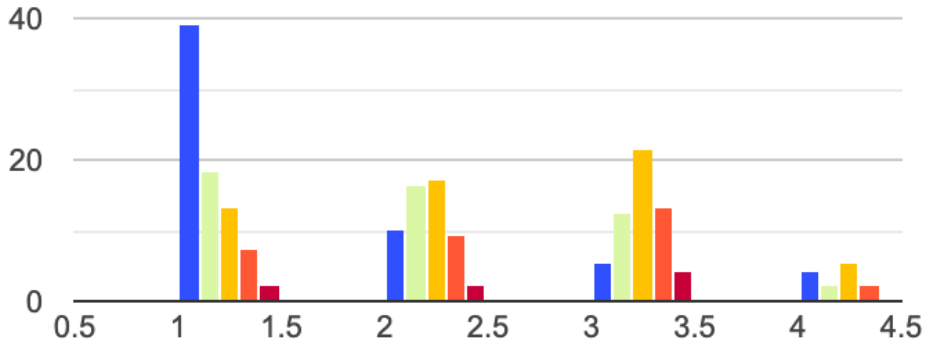

Figure 4.1 Distribution of shopping behavior scores in the different age groups, pre-pandemic (blue scores = 18- y.o., green = 30- y.o., orange = 40- y.o., light red = 50- y.o., dark red = 60- y.o.)

For group differences in the post-pandemic scenario, the Kruskal-Wallis shows no significant group differences which is not surprising looking at the following graph in Figure 4.2.

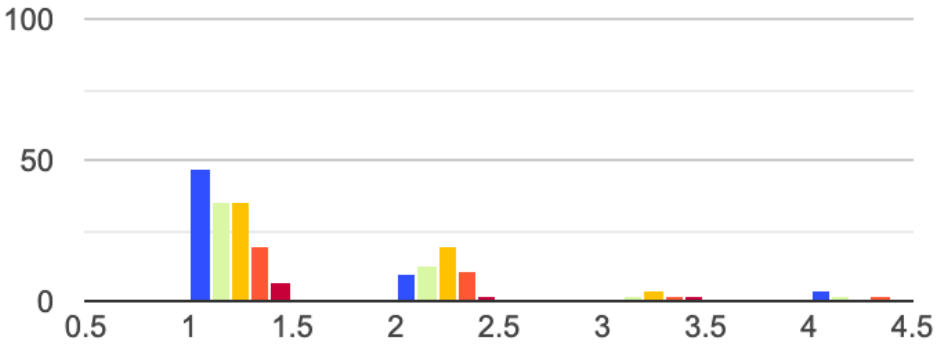

Figure 4.2 Distribution of shopping behavior scores in the different age groups, post-pandemic (blue scores = 18- y.o., green = 30- y.o., orange = 40- y.o., light red = 50- y.o., dark red = 60- y.o.)

As can be discerned form the above graph in Figure 4.2 for all age groups most of the shopping scores gather around the range of 1 to 2, none of the groups has larger numbers of individuals reporting high luxury shopping behavior.

4.5 Exploring data patterns

Given the amount of data provided by the participants, the author wanted to explore whether patterns in the overall data matrix could provide additional information for this study. Factor analysis is the tool of choice for large datasets with large numbers of variables (here: survey questions).

Analyzing patterns among psychological variables

In a first step, the author looked at a factor analysis regarding the psychological factors listed in Table 3.4 with 27 individual question items. As there are seven distinct psychological scales, the author solved the factor analysis setting a solution with seven factors. Running both a KMO measure of sampling adequacy and Bartlett's test of sphericity confirmed the data set's suitability for a factor analysis (KMO = 0.97, Bartlett's sign. <0.001).

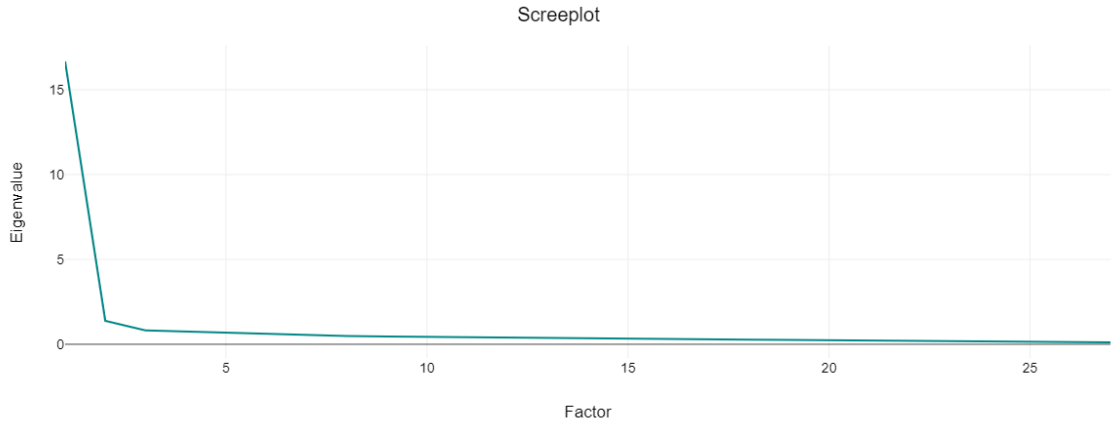

Figure 4.3: Screeplot for the unroated FA with psychological variables only

For the unrotated solution, the above screeplot (Fig. 4.3) strongly points at a solution with very few factors, possibly one or two only. Table 4.16 below lists the respective Eigenvalues which provides yet a clearer picture.

Table 4.16 Components, Eigenvalues and explained variance (table capped at component 10 as rest of the 27 components provided no further information)

Component	Total	% of variance	accumulated %
1	16.67	61.74	61.74
2	1.38	5.12	66.86
3	0.82	3.04	69.9
4	0.75	2.78	72.68
5	0.65	2.42	75.1
6	0.6	2.23	77.32
7	0.51	1.88	79.2
8	0.48	1.78	80.98
9	0.45	1.68	82.66
10	0.43	1.59	84.24

Table 4.16 clearly shows that only the first two components or factors have Eigenvalues above 1 and therefore should be considered as factors adding explanatory value to the solution. Factor 1 alone explains almost 62% of the total variance, together with Factor 2 the accepted solution explains approx. two thirds of the total variance. This suggests that two latent influences are associated with the data set of our psychological variables, but also that there remains room for a lot of unexplained variation.

Table 4.17 below shows the unrotated factor matrix for reference only. All items load at least 0.60 on the first factor, second factor still received medium-strong loadings from some items. However, the author is not going to discuss the unrotated solution (in fact a one-factor solution) in greater detail.

Table 4.17 Unrotated factor matrix with seven factors (1/2)

	Factors						
	1	2	3	4	5	6	7
Q9.a: SN, internal, before, unique and good quality	0.75	0.19	-0.16	-0.32	0.18	-0.02	-0.09
Q9.c: SN, internal, before, make me look better, make me happy	0.68	0.45	0.11	0	-0.37	0.02	-0.03
Q9.f: SN, internal, before, luxury goods represent beauty	0.8	0.01	0.16	0.06	-0.14	0.14	-0.03
Q9.g: SN, internal, before, culture and story behind the product	0.81	-0.06	0.14	-0.14	0.3	-0.07	-0.14
Q9.b: SN, external, before, all my friends/peers do	0.75	-0.12	-0.15	-0.21	-0.36	-0.17	0.08
Q9.d: SN, external, before, fashion trends in media	0.85	-0.18	-0.09	0.06	-0.08	-0.18	-0.04
Q9.e: SN, external, before, friends' direct recommendation	0.77	-0.12	-0.02	-0.02	-0.04	-0.37	-0.12
Q9.h: SN, external, before, stand out among friends	0.8	0.07	0.25	0.15	0	-0.08	-0.04
Q9.i: SS, before, imagined friends' recognition of me	0.83	-0.09	0.15	0.07	0.08	0.08	-0.04
Q9.j: SS, before, make me count in my social world	0.88	-0.13	0.03	0.01	0.06	0.14	0.08
Q9.k: SS, before, not buying diminishes my social standing	0.79	-0.28	0.01	0	0.03	0.21	0.17
Q10.a: SN, internal, after, unique and good quality	0.61	0.41	-0.36	-0.41	0.07	0.15	0.17
Q10.c: SN, internal, after, make me look better, make me happy	0.79	0.28	0.03	-0.07	-0.16	0.15	-0.14
Q10.f: SN, internal, after, luxury goods represent beauty	0.78	0.02	0.36	-0.1	-0.13	-0.03	0.01
Q10.g: SN, internal, after, culture and story behind the product	0.71	0.26	0.29	-0.24	0.23	-0.09	-0.18

Table 4.17 Unrotated factor matrix with seven factors (2/2)

Q10.b: SN, external, after, all my friends/peers do	0.86	-0.17	-0.12	-0.03	0.03	-0.07	-0.1
Q10.d: SN, external, after, fashion trends in media	0.82	-0.09	-0.14	0.07	-0.12	-0.16	0.14
Q10.e: SN, external, after, friends' direct recommendation	0.82	-0.3	-0.13	-0.11	-0.05	-0.16	-0.05
Q10.h: SN, external, after, stand out among friends	0.84	-0.05	0.11	-0.07	-0.1	0.07	0.14
Q10.i: SS, after, imagined friends' recognition of me	0.86	-0.31	0.05	0.04	0.06	0.13	0.03
Q10.j: SS, after, make me count in my social world	0.83	-0.01	0.17	0.02	0	0.14	0.2
Q10.k: SS, after, not buying diminishes my social standing	0.8	-0.24	0.01	-0.02	0.14	0.11	0.17
Q11: DSG, general shopping urge after pandemic has increased	0.77	-0.04	-0.24	0.19	0	0.24	-0.37
Q12.a: DSG, purchasing luxury goods after pandemic compensate for pandemic hardships	0.79	-0.1	-0.33	0.17	0.01	0.11	-0.08
Q12.b: DSG, all my life shopping compensated me for experienced hardships	0.7	0.4	-0.07	0.32	-0.04	0.04	-0.05
Q12.c: DSG, shopping after tough times makes me happy	0.78	0.17	-0.05	0.24	0.23	-0.18	0.1
Q13: DSG, indulging in luxury shopping after the pandemic makes me happy	0.67	0.42	-0.09	0.25	0.18	-0.18	0.25

More interesting for the interpretation of the data, however, is the rotated factor solution. Figure 4.4 shows the graph for the rotation sums of the squared loadings.

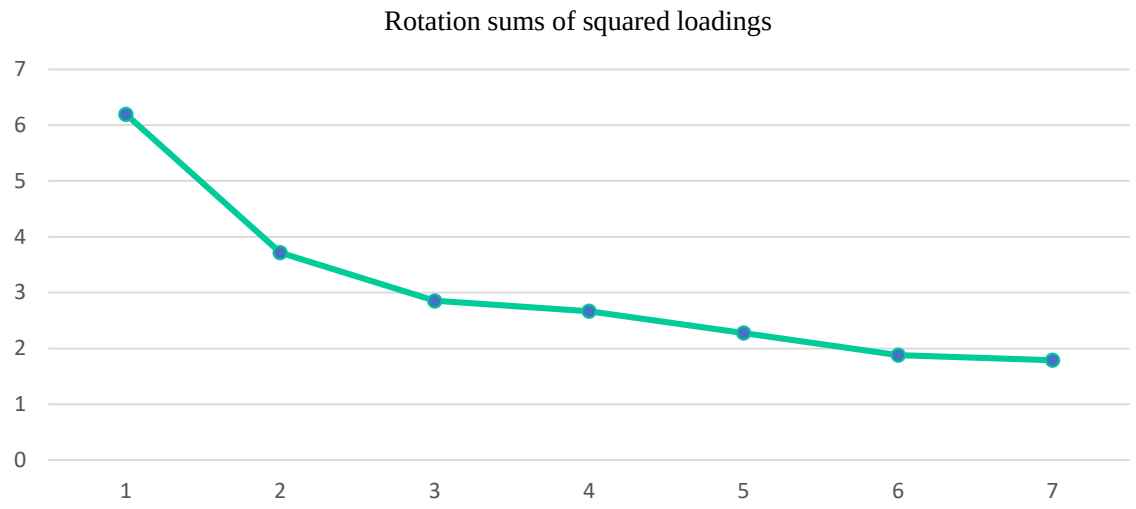

Figure 4.4: Squared loadings for the rotated FA with psychological variables only

Below Table 4.18 shows the details for explained variance for the seven factor rotation.

Table 4.18 Rotated factor matrix with seven factors

Component	Total	% of variance	accumulated %
1	6.20	22.96	22.96
2	3.72	13.77	36.72
3	2.85	10.57	47.29
4	2.67	9.88	57.17
5	2.28	8.44	65.61
6	1.88	6.97	72.58
7	1.79	6.63	79.2

Looking at the rotated factor analysis in more detail, that is the loadings of the individual questions on the seven factors, the numbers in Table 4.19 show the relationships.

Table 4.19 Rotated factor matrix for seven factors (1/2)

	Factors						
	1	2	3	4	5	6	7
Q9.a: SN, internal, before, unique and good quality	0.27	0.30	0.17	0.20	0.44	0.22	0.53
Q9.c: SN, internal, before, make me look better, make me happy	0.15	0.21	0.75	0.28	0.14	0.13	0.24
Q9.f: SN, internal, before, luxury goods represent beauty	0.53	0.24	0.48	0.20	0.21	0.25	0.09
Q9.g: SN, internal, before, culture and story behind the product	0.49	0.30	0.11	0.22	0.59	0.20	0.18
Q9.b: SN, external, before, all my friends/peers do	0.36	0.68	0.35	0.06	0.04	0.08	0.28
Q9.d: SN, external, before, fashion trends in media	0.46	0.60	0.21	0.27	0.21	0.26	0.09
Q9.e: SN, external, before, friends' direct recommendation	0.29	0.65	0.19	0.26	0.35	0.16	0.04
Q9.h: SN, external, before, stand out among friends	0.45	0.28	0.41	0.37	0.37	0.16	-0.03
Q9.i: SS, before, imagined friends' recognition of me	0.59	0.26	0.28	0.25	0.34	0.25	0.06
Q9.j: SS, before, make me count in my social world	0.68	0.30	0.24	0.24	0.23	0.25	0.20
Q9.k: SS, before, not buying diminishes my social standing	0.76	0.28	0.14	0.14	0.11	0.19	0.17
Q10.a: SN, internal, after, unique and good quality	0.19	0.15	0.23	0.24	0.14	0.12	0.84
Q10.c: SN, internal, after, make me look better, make me happy	0.31	0.20	0.57	0.21	0.27	0.31	0.31
Q10.f: SN, internal, after, luxury goods represent beauty	0.50	0.30	0.50	0.15	0.39	0.00	0.05
Q10.g: SN, internal, after, culture and story behind the product	0.26	0.14	0.33	0.23	0.70	0.07	0.24

Table 4.19 Rotated factor matrix for seven factors (2/2)

Q10.b: SN, external, after, all my friends/peers do	0.49	0.51	0.16	0.21	0.28	0.33	0.18
Q10.d: SN, external, after, fashion trends in media	0.46	0.56	0.24	0.36	0.07	0.16	0.18
Q10.e: SN, external, after, friends' direct recommendation	0.50	0.65	0.10	0.11	0.23	0.24	0.16
Q10.h: SN, external, after, stand out among friends	0.61	0.33	0.39	0.20	0.20	0.09	0.21
Q10.i: SS, after, imagined friends' recognition of me	0.74	0.36	0.15	0.15	0.23	0.28	0.08
Q10.j: SS, after, make me count in my social world	0.66	0.20	0.35	0.29	0.21	0.09	0.17
Q10.k: SS, after, not buying diminishes my social standing	0.71	0.30	0.08	0.22	0.20	0.16	0.19
Q11: DSG, general shopping urge after pandemic has increased	0.37	0.26	0.24	0.18	0.17	0.73	0.15
Q12.a: DSG, purchasing luxury goods after pandemic compensate for pandemic hardships	0.45	0.38	0.13	0.31	0.04	0.53	0.22
Q12.b: DSG, all my life shopping compensated me for experienced hardships	0.20	0.11	0.45	0.58	0.12	0.37	0.16
Q12.c: DSG, shopping after tough times makes me happy	0.36	0.28	0.15	0.66	0.28	0.20	0.14
Q13: DSG, indulging in luxury shopping after the pandemic makes me happy	0.21	0.17	0.24	0.77	0.16	0.07	0.25

Note: Highest loading on a factor is indicated in green, if loading is larger than 0.50, second highest loading, if larger than 0.40, is highlighted in yellow.

Table 4.19 shows that the first factor still gets strong loadings from several items but its overall strength has strongly diminished. Only six items load higher than 0.60 on Factor 1 now (as compared with all 27 in the unrotated solution). It is still the factor receiving the most number of highest loadings from items, i.e. nine out of 27. It has its strongest loading on social needs and social status factors before and after the pandemic but shows little communality with delay of self-gratification. Factor 2

is interesting as it clearly describes a “socially influenced by friends and media” trait before and after the pandemic (primary loadings on Q9.b, Q9.d, and Q9.e) but receives essentially no substantial loadings from other variables.

Factor 3 describes a narrow factor of “social needs building on happiness by looking better” (Q9.c and Q10.c) before and after the pandemic.

Factor 4 has a clear delay of self-gratification meaning with three (Q12.b, Q12.c., Q13) out of five of those items having their strongest loading on this factor and no substantial loadings from other items.

Factor 5 most strongly relates to “culture and story behind a product” (Q9.g and Q10.g).

Factor 6 finally seems to be a minor delay of self-gratification factor with strong loadings from Q11 and Q12.a and no loadings from other items.

For Factor 7 the label “unique and good quality” seems fitting as it receives strong loadings from both relevant items (Q9.a and Q10.a).

Including shopping behavior in the patterns

The main topic of this paper is to investigate shopping behavior and changes thereof in connection to the pandemic and/or the end of pandemic countermeasures. The above factor analysis resulted in a new understanding of some connections among the psychological variables. It seems only logical now to include shopping behavior variables and see whether one or more of them align with certain factors. The two variables brand shopping behavior before and after the pandemic (Q5.b and Q5.c) were included in the factor analysis. Suitability criteria for a factor analysis were similarly pleasing as above (KMO = 0.96, Bartlett < 0.001).

Table 4.20 Components, Eigenvalues and explained variance (table capped at component 5 as rest of the components provided no further information)

Component	Total	% of variance	accumulated %
1	16.70	57.59	57.59
2	1.80	6.20	63.79
3	1.21	4.17	67.96
4	0.82	2.83	70.79
5	0.75	2.59	73.37
6	0.67	2.30	75.67
7	0.59	2.03	77.70

The list of Eigenvalues and explained variance (Table 4.20) as well as the screeplot below support a solution with three factors in the unrotated solution. The total variance explained by these three factors is similar to what we saw in the factor analysis of just the psychological variables, that is, slightly more than two thirds of the total variance. This again leaves a considerable amount of variance unexplained.

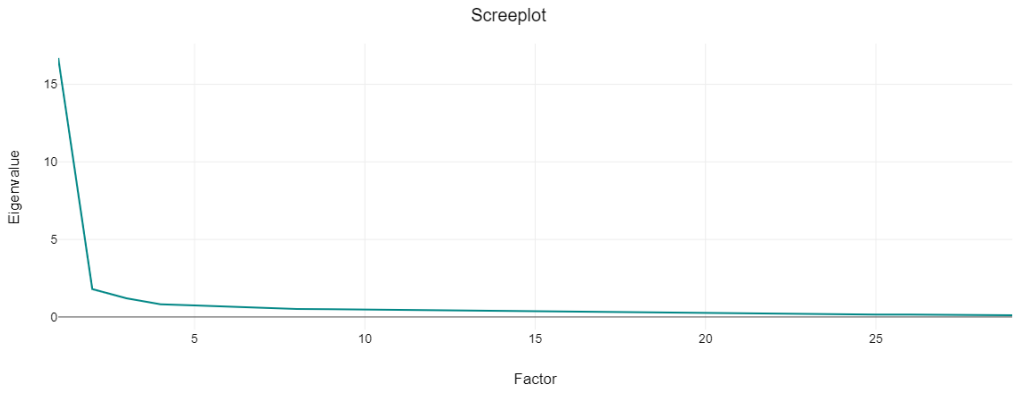

Figure 4.5: Screeplot for the FA with psychological variables and shopping behavior

In order to see how the shopping items were located in the factor space we need to survey the rotated solution, that is the graph for the sums of the squared loadings (Figure 4.5), the detailed results for the squared loadings (Table 4.21) and the component matrix (Table 4.22).

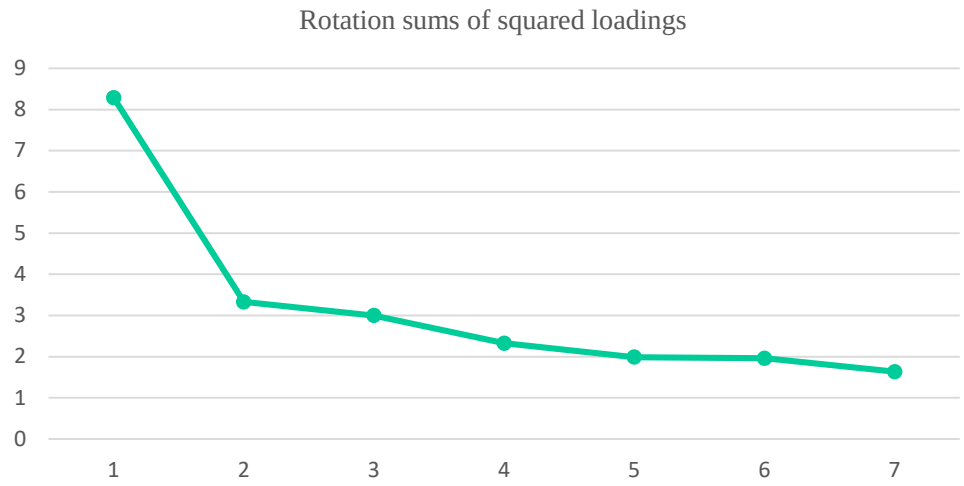

Figure 4.6: Squared loadings for the rotated FA with psychological variables and shopping behavior

Below Table 4.21 shows the details for explained variance for the seven factor rotation.

Table 4.21 Rotated factor matrix with seven factors

Component	Total	% of variance	accumulated %
1	8.29	28.58	28.58
2	3.33	11.48	40.06
3	3.00	10.35	50.41
4	2.33	8.02	58.43
5	1.99	6.86	65.29
6	1.96	6.77	72.06
7	1.64	5.64	77.70

Table 4.22 below offers more details on the individual item loadings for the seven factors.

Table 4.22 Rotated factor matrix for psychological variables and shopping behavior (1/2)

	Factors						
	1	2	3	4	5	6	7
Q5.b: purchased how many luxury products after lockdown converted into 4 steps	0.07	-0.03	-0.07	-0.17	-0.01	0.04	0.90
Q5.c: purchased how many luxury products before pandemic converted into 4 steps	-0.28	0.08	0.04	0.18	-0.01	-0.07	0.83
Q9.a: SN, internal, before, unique and good quality	0.32	0.27	0.32	0.15	0.37	0.55	-0.11
Q9.c: SN, internal, before, make me look better, make me happy	0.20	0.35	0.20	0.72	0.15	0.24	-0.02
Q9.f: SN, internal, before, luxury goods represent beauty	0.61	0.26	0.19	0.44	0.17	0.11	-0.02
Q9.g: SN, internal, before, culture and story behind the product	0.56	0.26	0.26	0.06	0.53	0.22	-0.09
Q9.b: SN, external, before, all my friends/peers do	0.45	0.06	0.64	0.35	0.05	0.26	0.06
Q9.d: SN, external, before, fashion trends in media	0.58	0.32	0.55	0.17	0.17	0.11	-0.09
Q9.e: SN, external, before, friends' direct recommendation	0.42	0.28	0.60	0.14	0.31	0.07	-0.01
Q9.h: SN, external, before, stand out among friends	0.52	0.40	0.23	0.35	0.37	-0.01	0.01
Q9.i: SS, before, imagined friends' recognition of me	0.68	0.30	0.19	0.21	0.30	0.10	-0.11
Q9.j: SS, before, make me count in my social world	0.75	0.28	0.22	0.19	0.21	0.22	-0.09
Q9.k: SS, before, not buying diminishes my social standing	0.78	0.14	0.22	0.13	0.11	0.16	-0.09
Q10.a: SN, internal, after, unique and good quality	0.21	0.24	0.14	0.20	0.13	0.84	0.02

Table 4.22 Rotated factor matrix for psychological variables and shopping behavior (2/2)

Q10.c: SN, internal, after, make me look better, make me happy	0.44	0.33	0.16	0.50	0.18	0.37	-0.01
Q10.f: SN, internal, after, luxury goods represent beauty	0.53	0.13	0.24	0.48	0.42	0.06	-0.03
Q10.g: SN, internal, after, culture and story behind the product	0.32	0.25	0.13	0.29	0.65	0.28	0.04
Q10.b: SN, external, after, all my friends/peers do	0.60	0.29	0.49	0.13	0.19	0.21	-0.06
Q10.d: SN, external, after, fashion trends in media	0.54	0.35	0.50	0.21	0.09	0.16	0.03
Q10.e: SN, external, after, friends' direct recommendation	0.61	0.15	0.59	0.07	0.18	0.18	-0.11
Q10.h: SN, external, after, stand out among friends	0.64	0.18	0.26	0.36	0.23	0.20	-0.02
Q10.i: SS, after, imagined friends' recognition of me	0.81	0.19	0.29	0.12	0.19	0.10	-0.14
Q10.j: SS, after, make me count in my social world	0.68	0.26	0.13	0.32	0.26	0.17	-0.01
Q10.k: SS, after, not buying diminishes my social standing	0.73	0.19	0.27	0.09	0.21	0.17	0.06
Q11: DSG, general shopping urge after pandemic has increased	0.57	0.45	0.26	0.19	-0.08	0.23	-0.13
Q12.a: DSG, purchasing luxury goods after pandemic compensate for pandemic hardships	0.61	0.45	0.34	0.07	-0.09	0.27	-0.12
Q12.b: DSG, all my life shopping compensated me for experienced hardships	0.34	0.68	0.07	0.36	0.07	0.21	0.05
Q12.c: DSG, shopping after tough times makes me happy	0.42	0.65	0.25	0.08	0.30	0.15	0.00
Q13: DSG, indulging in luxury shopping after the pandemic makes me happy	0.19	0.73	0.19	0.21	0.26	0.20	0.06

Note: Highest loading on a factor is indicated in green, if loading is larger than 0.50, second highest loading, if larger than 0.40, is highlighted in yellow.

Without discussing the individual factors in this solution, the factor loadings of the two shopping behavior items clearly depict how they are standing isolated in the factor space opened by the factor analysis. This is true in several perspectives. First, the two items have very high loadings on just one factor, Factor 7. Second, they have not even medium sized loadings on any of the other factors. Third, none of the other 27 variables has even medium sized loadings on Factor 7.

Applying the results from FA to re-analyze some relationships

From the factor analysis of the psychological variables, the author identified seven factors with partly clearly distinguishable meaning. In this section, the author attempted to investigate relationships between shopping behavior and some clearly established factors. For the factors, looking at Table 4.19 (rotated factor analysis solution) and checking what factors constituted pure (few loadings from non-factor variables) and meaningful (content wise clear, loadings from variables with similar meaning), the author selected Factors 2, 4 and 7 for the analysis in this section. Respondents scoring high on Factor 2 shop brands for based on recommendations from their social environment (friends or media), those high on Factor 4 show a strong tendency of using brand shopping of compensation for periods of hardship. For Factor 7 finally was defined by unique and good quality attributes of brand products.

For the following analyses, the author uses scales built up from the defining variables of each of the above factors and correlates them with the shopping behavior before and after the pandemic. For Factor 2 this includes variables Q9.b, Q9.d, Q9.e, Q10.b, Q10.d, and Q10.e, for Factor 4 the variables Q12.b, Q12.c, and Q13, for Factor 7 the variables Q9.a and Q10.a. The individual variables of each factor were collapsed to yield three scores (for example for the FA 2 score per respondent the author added the answer value for the six included questions and divided the result by six). The results are depicted in Table 4.23.

Table 4.23: Spearman correlations between each of the three selected factors and shopping behavior before and after the pandemic

	FA 2: Socially recommended	FA 4: DSG	FA 7: unique and good quality
Shopping behavior before	-0.19 ($p < 0.01$)	-0.05 ($p = 0.48$)	-0.14 ($p = 0.66$)
Shopping behavior after	-0.06 ($p = 0.36$)	-0.04 ($p = 0.57$)	-0.06 ($p = 0.44$)

The above results shown in Table 4.23 show that the factors derived from the rotated factor solution provide little additional explanatory value. All the correlations except the one between shopping behavior before the pandemic and Factor 2 are non-significant on a $p < 0.05$ level. The only correlation significant at that level is negative and small in effect size. It means that people shopping more brand items before the pandemic (in normal times) are less concerned with whether their friends or media recommends the particular brand items.

Linear regression – going all in

Finally, the author decided – for explorative purposes – to run linear regressions with all variables to see if and which of them could explain shopping behavior before and after the pandemic. Tables 4.24 and 4.25 hold the overall results for predicting shopping behavior before (Table 4.24) and after (Table 4.25) the pandemic.

Table 4.24: Linear regression results with shopping behavior before the pandemic as dependent variable

	Unstandardized coefficents	Standardized coefficients			
Model	B	Beta	Standard error	t	p-value
(Constant)	1.69		0.26	6.46	<0.01
Neg econ. impact during pand	0.04	0.05	0.08	0.46	0.65
Neg econ. impact after pand	0.03	0.04	0.08	0.33	0.74
Neg emot impact during pand	0.2	0.24	0.08	2.52	0.01
Neg emot impact after pand	-0.15	-0.22	0.08	-1.96	0.05
Ego needs before pand	-0.03	-0.02	0.18	-0.14	0.89
Social needs before pand	0.33	0.37	0.16	2.05	0.04
Ego needs after pand	0.17	0.16	0.15	1.08	0.28
Social needs after pand	-0.16	-0.19	0.17	-1	0.32
Social status before pand	-0.65	-0.78	0.14	-4.61	<0.01
Social status after pand	0.19	0.23	0.14	1.4	0.16
Delay of gratification general	0.37	0.36	0.11	3.27	<0.01
Delay of gratification after pand	-0.17	-0.2	0.1	-1.68	0.10

Note: R2 = 0.23, ANOVA results: df = 12, F = 4.52, $p < 0.01$; the three strongest variables marked green.

Table 4.25: Linear regression results with shopping behavior after the pandemic as dependent variable

	Unstandardized coefficients	Standardized coefficients			
Model	B	Beta	Standard error	t	p-value
(Constant)	1.16		0.19	5.95	<0.01
Neg econ. impact during pand	0.05	0.08	0.06	0.76	.45
Neg econ. impact after pand	0.05	0.11	0.06	0.91	.36
Neg emot impact during pand	0.13	0.22	0.06	2.13	0.04
Neg emot impact after pand	-0.12	-0.25	0.06	-2.10	0.04
Ego needs before pand	-0.23	-0.32	0.14	-1.72	0.09
Social needs before pand	0.23	0.38	0.12	1.96	0.05
Ego needs after pand	0.11	0.15	0.12	0.93	0.35
Social needs after pand	-0.13	-0.22	0.12	-1.08	0.28
Social status before pand	-0.12	-0.21	0.11	-1.14	0.26
Social status after pand	0.07	0.12	0.1	0.69	0.49
Delay of gratification general	0.17	0.24	0.08	2.01	0.05
Delay of gratification after pand	-0.13	-0.22	0.08	-1.67	0.10

Note: R2 = 0.11, ANOVA results: df = 12, F = 2.01, p = 0.03; the three strongest variables marked green.

The regression models showed different predictive power. For the brand purchasing behavior before the pandemic, the model was able to explain some 22.6% of the variance in purchasing behavior (highly significant at $p < 0.01$). This can be characterized as medium-strong. The variables contributing most to the model's power were in descending order the social status motivation before the pandemic (neg. relationship!), the general delay of self-gratification trait and the negative emotional impact experienced during the pandemic. For the model predicting variance in shopping behavior after the pandemic, the effect size is clearly smaller at 11.50%. The three variables – very similar in strength – contributing most are (again) the negative emotional impact experienced during the pandemic, the negative emotional impact experienced after the pandemic (negative) and – again – the general delay of gratification trait.

5. Discussion

The author will follow the above sequence of hypotheses in the methodology and results section to discuss the findings of this study.

5.1 Needs theory and predictions for shopping behavior

As discussed in the literature review, based on studies from other researchers the author expected that Chinese shoppers are strongly motivated by their social needs, at least stronger than by their growth needs. For the time after the pandemic, as social needs become more pronounced, this tendency should be even stronger.

In order to investigate the above Hypotheses 1 and 2, the author has conducted data analysis to explore the relation between first, consumers' shopping behavior and social needs before pandemic, second, consumers' shopping behavior and growth needs before pandemic, third, consumers' shopping behavior and social needs after pandemic and fourth, consumers' shopping behavior and growth needs after the pandemic.

The results explained in section 4.1. suggest that, for the time before the pandemic, a fairly weak correlation can be observed while the effect of growth needs appears slightly stronger than that of social needs. In other words, the connection between growth needs and shopping behavior looks stronger than the correlation between social needs and shopping behavior. This was not as expected from the literature. However, it was not the small difference in the magnitude of the two correlations rather the direction of the correlation that partly differed from the expectations drawn from other research papers (e.g. Sun et al., 2014, Leung & Chan, 2003). The correlations were both negative, meaning that higher scores in growth or social needs were associated with buying fewer luxury items. For the association between growth needs and shopping behavior this does not contradict other researchers' findings. There was never a strong positive correlation between luxury shopping and

growth needs to be expected for Chinese shoppers. Indeed, individuals scoring high in growth needs might be less prone to shop brands for showing them off which seems an essential part of luxury shopping in China.

However, the negative correlation between social needs and shopping behavior did contradict our expectations. Although the correlation is a little less negative than the one for growth needs and shopping behavior, the author rejects Hypothesis H1 on basis of the collected data.

To be sure about any additional association and differences in the strength of the correlations between social and growth needs on the one hand and shopping behavior on the other, the author ran a logistic regression analysis. The p-value was non-significant and the model did not offer additional explanatory value.

For evaluating Hypothesis H2 – comparing the correlation between social needs and shopping behavior before and after the pandemic – the author first looked at the correlation of social needs (and growth needs) to shopping behavior after the pandemic. No significant p-value for either correlation was found; not even on the more relaxed ten percent threshold. Running a logistic regression analysis, the result was also statistically non-significant. As there was no correlation between social needs and shopping behavior in the post-pandemic situation, no comparison to the correlation in the pre-pandemic situation was possible and Hypothesis H2 needs to be rejected as well.

For explorative purposes, the author compared the participants' scores in social needs and growth needs from before the pandemic and after the lockdown ended. While social need scores remained unchanged on the group level, growth needs increased highly significantly from before the pandemic.

This is an interesting finding as the author expected an increase in consumers' social motivation for luxury shopping. Social distancing and restrictions during the lockdown should have increased people's social needs as they were not able to see each other or interact in real life. The potential urge to meet and connect with others when the restrictions are lifted combined with a chance to show off

new luxury items should have increased social needs. Guha (2021) had a similar finding. He illustrated how people were motivated during the Covid-19 pandemic based on Maslow's needs theory. In the initial phase, people were stockpiling mostly essentials including food, toilet paper etc. This shopping behavior was driven by first primary needs, that is physiological needs. Then the shopping pattern shifted accordingly as consumers' focus changed. A drastic increase in sales of entertainment including toys, hobby items, media and sporting goods was observed. In the meantime, a high demand for home appliances, remodeling and garden overhauls was reported as well due to the fact that many people were stuck at home. Finally, at the end of the year 2020, when people had stayed home for a long time, a human urge of connecting with others was observed. Although face-to-face meeting was still prohibited, the sales of online gifting increased by 13% year-over-year reportedly.

It is not difficult to see that people started to show their desire to socially interact with others after a period of isolation. However, this kind of tendency was not observed among the respondents in this sample. A few reasons can be considered. First, the hard lockdown period in China was fairly short – roughly two months. As the number of coronavirus cases dropped, shops and restaurants reopened for consumers and people were able to see each other again. In such a short period, it is likely that this individual urge to make some social connection was not developed at all. To better understand the influence of the severity of the impact, the author looked separately at a subset of the sample, that is those 25% of respondents who felt the strongest emotional or economic impact during or after the pandemic and calculated the correlations between social/growth needs to shopping behavior for the post-pandemic situation (Table 4.3). Correlations on at least the ten percent explorative level emerged for only that subgroup who experienced the economic impact during the pandemic the strongest. For this subgroup there was a medium-strong relationship between both social and growth needs on the one hand and shopping behavior on the other. After the pandemic, for people who had suffered strongly (emotional and/or economical), the stronger their social and/or growth needs were after the pandemic,

the less shopping they did. So, higher social needs resulted in less shopping. The same is true for growth needs. While not surprising for growth needs, the clear and medium-strong, negative relationship between social needs and shopping behavior remains difficult to explain. What seems clear is that the level of suffering during the pandemic accelerated the shift to less shopping despite high social needs.

One factor that may influence people's social motivation and explain the above results could be the internet. During lockdown, a variety of online software services was developed in order to meet people's social needs. For example, Zoom can be used for online meetings with which many people could work from home. The development of E-commerce and social media could also enrich users' lockdown life and possibly make them less bored at home. Maybe this way of exposure showed people with high social needs that there were other ways to satisfy social needs than brand shopping, e.g. by showing off some talent for hobbies at home or similar. Also, a suggestion from anecdotal talk with one of the subjects, in this age of the internet you might not need to buy in order to actually show off brand clothes. Most luxury brands selling in China offer a free shipping, try on and return products policy that makes it easy for people with high social needs to order, take pictures and return undamaged items through the mail. As no interaction with store clerks is required clothes are not damaged/dirtied in real-life social settings like nightclubs and parties, returning might be much easier than before the pandemic. Naturally, as the author has not investigated this possibility, this remains speculation and needs to be investigated further.

5.2. Social status motivation and shopping behavior

Showing off and displaying their social status prominently through luxury brands and brand shopping was identified by Zhang and Wang (2019) as important motivations for Chinese customers. Based on this and other research the author of this study hypothesized that social status motivation

and shopping behavior would be well correlated, that this might have increased after the pandemic as social status gains would have increased relatively to the time before the pandemic and that this might be particularly pronounced in those groups who have suffered most during the pandemic.

Not unlike the results from the first set of hypotheses regarding social and growth needs, also for social motivation the direction of the found correlations did not fit expectations from research and the literature review. Tables 4.5 and 4.7 show that social status motivation has a weak to medium-strong, negative correlation to shopping behavior before and after the pandemic. Both correlations are significant at the five percent level and indicate that survey participants with pre-pandemic higher social status motivation (we might call it their basic social status motivation or "trait" as not influenced by the pandemic) are buying fewer luxury products before the pandemic and after the end of the lockdown. Hence, for this sample of respondents we can reject Hypothesis H3, meaning there is no evidence suggesting that Chinese consumers shop brand products for social status motivation. From the somewhat smaller negative correlation to the post-pandemic shopping behavior, we might infer, that consumers indeed saw somewhat higher merits for satisfying their social status motivation by brand shopping. However, due to any number of other possible influences this needs to be interpreted cautiously. Given this slight shift in the expected direction of the correlation between social status motivation and shopping behavior, it seems unwarranted to reject Hypothesis H4 at this point. The author however would like to stress there is no strong evidence supporting the hypothesis that after the pandemic social status motivation had a stronger correlation with shopping behavior.

In order to further investigate the above pattern, the author calculated a Spearman rank order correlation of the social status scores before pandemic and after the end of the lockdown. The resulting very high correlation of $r = .82$ (highly significant) and the results from Table 4.6. (showing there is no difference in social status motivation in the sample median before and after the pandemic) suggest that indeed individuals did not change in social status motivation. Since, however post-pandemic

social status motivation and post-pandemic shopping behavior is no longer correlated (while pre-pandemic social status motivation and shopping behavior is!), it seems likely that a third variable modifies the relationship between social status motivation and shopping behavior. At this point and since this research was not constructed to uncover such third variables, we can only speculate what this influence could be. One influence might derive from the somewhat restricted sample of Shanghai residents mostly with high or very high educational level. Higher education might indeed reduce the influence of social status motivation somewhat or at least mediate it towards educational show-off effects, that is people not showing off brands and luxury products but achieving higher status through valued educational degrees. Another influence could be expectations towards the end of the pandemic, further economic development and further anticipated lockdowns. Although the restart of the Chinese economy and return to normal seemed sweeping and decisive, particularly Shanghai people are well connected to world and the Chinese government was heavily broadcasting how the rest of the world had trouble dealing with the virus. For many Chinese consumers, they might well have believed that a reoccurrence of the pandemic in China was a strong possibility, which in turn influenced both social status motivation and shopping behavior or at least the relationship between the two. What is more, one fact that should not be ignored is that, the retail price of most luxury brands in China are more expensive than that in European countries. Due to the travel restriction, most of Chinese consumers are at the moment not able to travel abroad, hence they have no access to cheaper luxury products. It is possible that some Chinese consumers may be reluctant to pay more for luxury products inside China. Their hesitancy could be another factor that influences Chinese consumer shopping behavior.

Finally, in regard to social status motivation, similarly to the chapter on social needs, the author took a look at restricted subsets of the sample. Table 4.8 shows the results for the correlation between post-pandemic social status motivation and post-pandemic shopping behavior in those subgroups that felt most strongly impacted emotionally or economically during or after the pandemic. The results

clearly underline the finding for the overall sample which is the lack of a relationship between social status motivation and shopping behavior. As none of the correlations is even remotely close to any statistical significance, we can safely disregard Hypothesis H4.1. which argued for a more pronounced correlation in the subgroup of people who suffered economically most from the pandemic. However, from the explorative pattern analysis in in Tables 4.22 and 4.23 (linear regressions trying to predict the shopping behavior before and after the pandemic) it should be noted that severe emotional impact from the pandemic has some association with shopping behavior. Among the three strongest predictors for shopping behavior after the pandemic, one was the emotional impact during the pandemic, another was the emotional impact after the pandemic (the third predictor was delay of self-gratification). So, it seems rather emotional than economic impact that is associated to shopping behavior. Because the linear regression model for post pandemic shopping behavior in general had very moderate predictive power, however, this needs further investigations before being able to draw firm conclusions.

5.3. Delay of self-gratification and shopping behavior

Essentially a measure for self-control, delay of self-gratification in connection to shopping luxury goods means that people are willing to hold-off with impulsive shopping behavior to benefit from buying something “better” later. In the context of the Covid-19 pandemic and the government lockdowns also affecting shopping opportunities, the end of the lockdown offered shoppers a strong motivation for impulsive shopping. Based on the literature review, the author investigated the questions, whether shopping behavior after the pandemic was similarly strong as before, that is whether people were coming back to the marketplace and maybe even bought more after the end of the lockdown driven by pent-up demand and impulsive shopping opportunities. Besides looking just at the shopping related data, the author also suggested that people who scored high in delay of self-gratification did indeed forego shopping opportunities after the lockdown.

In regard to shopping behavior the results shown in Tables 4.9 and 4.10 point out a fairly clear picture. Respondents in our sample have reported clearly less brand shopping after the end of the lockdown. The highly significant difference before and after was then supported by a medium-strong correlation between reported shopping behavior for the individual respondent before and after the pandemic. Hence, the author can – with some confidence – state that a coherent pattern of buying less brand products was observed from before to after the pandemic and that this shift was due to the individual respondents consistently buying less after the pandemic. The medium-strong correlation of the individual scores rules out the interpretation that just some people (e.g. those who felt the impact strongest) caused the overall group shift in shopping scores. This result is inconsistent with Hypothesis H5, that is, it supports the idea of a broad and general delay of self-gratification trend in our sample.

However, in the above results we simply looked at shopping data without evaluating the relationship to delay of self-gratification directly. In order to explore this relationship, the author looked at the two subgroups of high and low general delay of gratification (that is the respondents who scored in the highest and lowest quartile of general delay of self-gratification respectively). Tables 4.12 and 4.13 show that significant and at least medium-strong correlations exist mostly for the group of respondents with high levels of delay of self-gratification. Regardless of whether looking at their general delay of self-gratification scores or the ones from after the pandemic, a medium-strong correlation is found with shopping behavior before the pandemic but not the shopping after the pandemic. The existence of a relationship between delay of self-gratification and shopping behavior is also supported by the explorative linear regression models predicting shopping behavior before and after the pandemic (Tables 4.24 and 4.25 respectively). The general delay of self-gratification score was the only psychological trait consistently and strong related to shopping behavior, both before and after the pandemic. Delay of self-gratification is also one of the factors clearly emerging from the factor analysis (Table 4.19).

As the correlation is positive, it means that for persons who already score high on delay of self-gratification, the higher their level of delay of self-gratification, the more they are shopping before the pandemic (e.g. in normal times). While at first this seems counter-intuitive and against the literature findings (i.e. delay of gratification should be associated with postponing shopping), for the shopping behavior before the pandemic we have included questions assessing impulsive shopping behavior. People with high degree of delay of gratification may simply be those people already (more) successful in life, hence having better employments, better education and better income.

Hence, the abrupt breakdown of the correlations between delay of gratification and post-pandemic shopping behavior for this group actually supports our hypothesis and what we expected to find from the literature. That high level of delay of gratification was no longer correlated with high shopping behavior after the pandemic could simply mean that in this group people associated the post-pandemic situation as potentially short-lived respite and hence postponed shopping – exactly what was to be expected from high delay of gratification persons. Table 4.11 shows the highly significant correlation between the individuals' delay of gratification scores before and after the pandemic and hence supports the idea of delay of gratification being a trait that for a strong part did not change over the course of the pandemic particularly for the group of persons high in delay of gratification. Hence, the results found some support for Hypothesis H6, showing a decrease in shopping behavior after the pandemic and that high level of delay of gratification was no longer correlated to high levels of shopping. While we would have wished to find a negative correlation for this last relationship, the strong drop in the positive correlation can be interpreted as tentative support.

5.4. Demographic variables etc.

As demographic variables and their correlation to shopping behavior are of routine interest for marketers, it is worth to take a look at how the sample in this study differentiated along typical

demographic variables.

From Parisi (2017) and other research we would expect that men might shop more than females on a value base observation but that in general on an item base females and males shop similar numbers of luxury items. Table 4.14 summarizes the results for males and females differentiated along shopping before and after the pandemic. As expected from the literature there was no significant difference between males and females in the number of items shopped. This was true for the pre-pandemic as well as the post-pandemic situation. Both groups also clearly shopped less after the lockdown ended. The respective differences to the shopping behavior before the pandemic were highly significant. That means, whatever caused our sample to reduce their shopping behavior, it affected males and females in a similar way.

When looking at another important demographic variable, age, the literature is somewhat less conclusive. Buckle (2019) stated that the age group of 25-to-44-year-old is the strongest shoppers, Zhang (2020) points at the strong impact of millennials and Nisha (2019) stresses the importance of the younger age group between 18 and 25. In our sample we first found a confirmation for the trend along the gender variable. All age groups shop significantly less after the lockdown is over than before as shown in Table 4.15. For the group of over 65-year-old, the number of participants was too small to arrive at a meaningful comparison.

Looking at differences along the age groups it turns out that in the pre-pandemic time, the youngest group shopped significantly less than other age groups. Hence, for our sample we cannot replicate findings from India (Nisha, 2019) but will side with others (Buckle, 2019) observing stronger shopping behavior in 30-to-60-year-old. While we cannot infer the reason for the lower consumption rate of young people in our sample, economic reasons or the trend that younger people tend to look stronger for inner values than showing off could be the cause.

Shopping behavior generally moved to less luxury shopping after the pandemic, consistent over

gender and age groups and on an intraindividual level. This speaks for the idea that people might not have really believed that the pandemic is truly over and were holding out for more to come. Hence, they are reluctant to take up the shopping behavior from before the pandemic.

6. Conclusion and implication

The Covid-19 pandemic and the resulting public health measures have cost the world billions of dollars in damages and frustrated costs. The retail industry experienced one of the strongest impacts which makes it all the more relevant to understand, whether the pandemic and related measures had a lasting effect on consumers and/or whether the end of the pandemic saw differences in shopping behavior. Focusing on the luxury product industry the author found that shopping behavior soon after the end of the pandemic did not recover to pre-pandemic levels. People with stronger growth needs tend to shop less, scores in growth needs increased from pre- to post-pandemic, and experiencing severe economic or emotional impact through the pandemic accelerated the mentioned association. Also, people high in social status motivation consistently bought fewer brand products before and after the pandemic. After the pandemic higher social status motivation had a less negative correlation to brand shopping and it is arguable that some other variable influenced that relationship. For people high in delay of gratification, they consistently shopped more before the pandemic but not after the pandemic.

The results of this study have important implications for professionals in the personal luxury brand industry. Hit hard by the pandemic and social restrictions, the retail industry needs to take research on consumer shopping behavior after the pandemic and changes thereof seriously in order to avoid investing in non-profitable outcomes. As a clear result from our study, the end of the lockdown alone does not lead to a widespread consumer rally in luxury products. Although newspaper articles and social media might draw a different picture, these could be singular stories. The broad result in

our study points to a drop in shopping after the lockdown. Of course, as this is not a longitudinal study and did not follow up with the same individuals continuously over longer time periods, the drop in shopping behavior might be limited to the first weeks and months after the lockdown ends. This alone, however, already has important implications as more and more countries are just now entering a period of high vaccination rates and the lifting of lockdown measures. So, for the time being, while luxury brands might want to win consumers back, they are – based on this study – confronted with a still cautious consumer base. From including a number of psychological variables typically associated with shopping behavior, it becomes clear how important it is for retailers to know their customers in details. That would include details about their psychological make-up. This knowledge would suggest – again based on the results in this study – that groups like people with severe emotional or economic impact through the pandemic or those with a high delay of gratification trait are very unlikely to come back immediately and continue to shop as before. For these customers a more long-term marketing approach might be reasonable. People usually willing to buy to show off their social status might be better immediate customers however also here marketers need to tread carefully because the relation to shopping behavior still seems to depend on some other variables that this research has not determined yet. At the very least we know from the results that experienced economic or emotional suffering does not seem to have a significant influence on their shopping behavior. Knowing your customer once again remains the golden rule of thumb for brand retailers.

7. Limitation and future research

There is no study without limitations, hence also in this research the author admits to a number of limitations that influence how the reader should interpret the results and draw conclusions. The main purpose of this study was to analyze Chinese consumer behavior of luxury brand shopping from a psychological perspective in the context of the Covid-19 pandemic. This complex undertaking was

possible only through a number of self-imposed limits on sampling, the survey procedure, assessment of behavior etc.

First, in order to streamline the study, the author defined the luxury goods as personal luxury goods, that is, fashion-related items. Other categories such as luxury cars, luxury experience, real estate etc. are excluded in the assessment. It is not difficult to imagine that consumers who are able to purchase a sports car may have more disposal income compared to personal luxury goods shoppers. The pandemic and the end of it might also have had a differential impact on the different categories. Generally speaking, while international tourism travel plunged in 2020/21, the super-rich were still able to charter private jets and take to islands and remote, safe places for (extended) vacation. Luxury cars have seen brisk demand in rich countries as more people including the well-off decided to forego any use of public transport. Mountain chalets and villas outside the busy city centers, houses in non-urban areas have seen strong sales in many countries as a mixture of fear of densely populated areas and generous work at home rules took hold in many countries. Hence the shopping behavior may differ depending on the category of luxury products. Some of them might not have seen the clear drop seen in our sample after the lockdown ended.

Similar to limiting the category of luxury products evaluated, the author also limited the sample of respondents. As described in the methodology, the sample was drawn from people living/working in the Shanghai area. Therefore, while validity to other larger cities in China can be well argued, the validity to shoppers in other cultures and countries needs to be cross-validated. For future studies, researchers should look into other regions, whose consumers might show different attitudes towards luxury brand consumption based on their culture, value, purchase power etc.

A third limitation derives from the method of assessment. The author used the questionnaire method which has many advantages. In order to measure respondents' psychological traits, the author compiled thirty-five questions with Likert scales. While the psychological traits to be assessed through

these 35 questions showed high internal consistency a factor analysis did not properly find the respective survey items associated with the proposed psychological traits (Table 4.19). Only some showed to be distinct factors such as delay of self-gratification, influence by the opinions of friends and the media, uniqueness and good quality of brands etc. Future studies would do well to make sure that the psychological traits to-be-measured are clearly reflected in the data as distinct factors.

Particularly in regard to shopping behavior, real data would have been preferable. While the author tried to prevent biased responses through simple and clear questions (e.g. simply asking for the approximate number of purchased items), respondents still might have had implicit or intended biases. Coming to mind is e.g. a notion to underreport luxury shopping as respondents were aware that others had suffered great losses during the pandemic. The social pressure to "self-restrain" in the face of economic victims could have resulted in people reporting less shopping than what they actually did. It is also possible that respondents might have misinterpreted some of the survey questions and give some dishonest answers due to a social desirability bias or an attempt to protect their own privacy. The fairly large number of survey questions could possibly lead to respondent survey fatigue hence the accuracy of the survey may decrease. An additional limitation is the recruiting method through an online platform. Only people who could be contacted through the online platform are included in the sample – maybe one of the reasons why our sample contained fewer respondents in the highest age group. For future studies, researchers could employ a different method for data collection to enhance the validity and reliability of the data. For instance, in-depth interviews could be an effective method to collect data that is less biased. Distributing a survey offline could include the group of people who have no internet access in their life which, in this case, can make the age group more well-distributed.

Finally, also the time span and/or the timing of the study might have influenced the results. The study was conducted at a time when China had lifted almost all restrictions inside the country. Hence, this seemed an appropriate timing given that the author wanted to research how people changed their

shopping behavior after the crisis. However, it was also a time when the world abounded of news about the detrimental impact of the pandemic. America experienced the deadliest months; Europe was under siege and Latin America started to become a hot spot for the pandemic. With so many negative news entering peoples' minds even in China, one can argue that this negative influence outweighed a positive "Covid-19 is over!" sentiment coming from the end of the lockdown. Therefore, it is difficult to say that our data is absolutely objective. For future studies, researchers could try to focus on pursuing the objectivity of survey participants' responses by selecting a proper time and giving the participants a more proper guidance before the data collection.

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Questionnaire (English)

Consent for Participation

The following questionnaire will open with a few demographic questions and then ask basic questions regarding your shopping behavior.

In the demographic part of the questionnaire personal information will be collected to better understand the impact of social factors (for example: age, employment status, education) on your choices.

The participation in this questionnaire is anonymous. You do not have to register to take part in it. None of the individual data collected will be made available to third parties!

The collected information will be password protected on the researcher's laptop and deleted irrevocably in March 2022.

I. **Respondent background investigation:**

1. How old are you
   A: 18 ~ 29
   B: 30 ~ 39
   C: 40 ~ 49
   D: 50 ~ 59
   E: older than 60

2. Gender
   A: Male
   B: Female
   C: Other

3. Highest education level completed
   A: Middle school or below
   B: High school graduate, diploma or equivalent
   C: Bachelor degree

D: Master degree

E: Doctorate degree or above

4. Please indicate your current occupation

A: Full-time student

B: Employed

C: Self-employed

D: Unemployed

E: Retired

II. **General attitudes towards luxury goods and facts**

5. Did you buy any luxury goods for example handbags, clothes or accessories from brands like Gucci, Fendi, Hermes, Rolex, Fendi etc. over the last two years (2019-2021)?

A: Yes

B: No

- Approximately how many luxury items did you buy after the shops reopened in Shanghai after the pandemic (after April 2020 until today)?

A: 1 ~ 5

B: 6 ~ 10

C: 11~20

D: More than 20

- How many luxury items did you buy in the year before the pandemic started (for example in the year 2019)?

A: 1 ~ 5

B: 6 ~ 10

C: 11~20

D: More than 20

6. The pandemic including all the aftereffects had a negative influence on my income/financial well-being

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
a. During and immediately after the pandemic I felt its negative influence on my income/financial situation.					
b. Even now I still feel a negative influence on my income/financial situation due to the pandemic.					

7. The pandemic including all the aftereffects has negatively impacted my emotional and psychological well-being

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
a. During and after the pandemic I felt its negative influence on my emotional and psychological well-being.					
b. Even now I am experiencing the negative influence of the pandemic on my emotional and psychological well-being.					

8.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
It is understandable for luxury brands to increase the prices of their products even after pandemic.					

9. **BEFORE** the pandemic, what is your purpose of luxury good purchase?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
a. I buy luxury brands because they are unique, of good quality.					
b. For me, wearing luxury brands is something all my friends and peers do.					
c. Luxury brands can make me look better, better reflect my style. Buying luxury brands makes me happy and satisfied.					
d. I buy luxury items according to the current fashion trend I see in others or the media.					
e. When my friends recommend certain fashion items directly to me, I usually buy them.					
f. I enjoy owning a variety of luxury goods because they generally represent beauty and wellness.					
g. I am interested in the culture and history behind luxury brands, purchasing them will let me have a better understanding of the brand itself.					
h. Luxury brands make me stand out positively among friends and colleagues. Friends and colleagues admire my brand items. i. Thinking about how my friends and peers regard me with new luxury brand items makes me want to go shopping. j. Owning luxury items increases my feeling about how much I count in my world. k. Not wearing luxury brands would put me back in the eyes of my friends.					

10. **AFTER the** pandemic, what is your purpose of luxury good purchase (do you think there is any change)?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I buy luxury brands because they are unique, of good quality.					
For me, wearing luxury brands is something all my friends and peers do.					
Luxury brands can make me look better, better reflect my style. Buying luxury brands makes me happy and satisfied.					
I buy luxury items according to the current fashion trend I see in others or the media.					
When my friends recommend certain fashion items directly to me, I usually buy them.					
I enjoy owning a variety of luxury goods because they generally represent beauty and wellness.					
I am interested in the culture and history behind luxury brands, purchasing them will let me have a better understanding of the brand itself.					
Luxury brands make me stand out positively among friends and colleagues. Friends and colleagues admire my brand items. Thinking about how my friends and peers regard me with new luxury brand items makes me want to go shopping. Owning luxury items increases my feeling about how much I count in my world. Not wearing luxury brands would put me back in the eyes of my friends.					

III. **Self-gratification (revenge buying)**

11.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
After the pandemic my urge to shop regardless of luxury goods or not has strongly increased.					

12.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
a. I feel that I need to buy more luxury goods after the pandemic to compensate for the hardships in the pandemic b. All my life, after experiencing hardship or difficult periods, I rewarded myself by shopping. c. Going shopping even by myself, gives me great pleasure after difficult times or challenges.					

13.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
It makes me happy to indulge myself in luxury shopping after the pandemic.					

**** **bonus question**

14. What would make you stop purchasing luxury brand items?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
When the price is increased despite the price hike might be reasonable based on material costs etc. When brand products lose their 'unique' character. In other words, when many people have it. Although they are still expensive. When the brand image itself is lowered as the brand becomes affordable for the general public					

15. When shops were closed during the lockdowns, the inability to go to shops and buy luxury items made me feel _____

16. Even when buying luxury items online during the lockdowns, the inability to go out and wear and show them to my friends and peers made me feel _____

Thank you!

Questionnaire (Chinese)

在新冠疫情期间对中国消费者奢侈品消费行为研究的调查问卷

您好！

感谢您填写此份问卷！本问卷是笔者毕业论文写作的一部分，我们只对问卷数据进行综合性的统计处理，不做个案研究，您将会以匿名的形式来回答此问卷，同时您的信息将会得到严格的保密，请您放心来作答。

Ⅰ. 关于您的个人信息‘

17. 您的年龄：
    A: 18 ~ 29
    B: 30 ~ 39
    C: 40 ~ 49
    D: 50 ~ 59
    E: 60 岁及以上

18. 您的性别
    A: 男
    B: 女
    C: 其他

19. 您至今所取得的最高教育水平
    A: 初中及以下
    B: 高中（包括中专，职业技术学校等）
    C: 本科（包括大专等）
    D: 硕士
    E: 博士及以上

20. 您如今的工作状态
    A: 全日制学生

B: 受雇
C: 自雇
D: 待业
E: 退休

Ⅱ. 关于您的奢侈品消费的基本态度

奢侈品被广泛定义为“一种超出人们生存与发展需要范围的，具有独特、稀缺、珍奇等特点的消费品”，又称为非生活必需品。而在本问卷中，为了方便作者的研究，关于以下问题中所提及到的奢侈品则仅局限于服装，皮具（箱包）和珠宝首饰类。其代表奢侈品牌有: Cartier(卡地亚)，Rolex(劳力士)，Hermes（爱马仕）, Vacheron Constantin（江诗丹顿）, Tiffany(蒂凡尼)， Louis Vuitton（路易威登）, Dior（迪奥）, Prada（普拉达）, Gucci（古驰）, Chanel（香奈儿）, Fendi（芬迪）等。

21. 您在过去的两年（2019 年至今）有过奢侈品的消费记录吗？
A:有
B:无

- 在新冠疫情好转，各大商店重新营业之后（2020 年 4 月至今），您一共购买了多少件奢侈品？
A: 1 ~ 5
B: 6 ~ 10
C: 11~20
D: 20 件以上

- 从 2019 年初到在新冠疫情封城之前，您一共购买了多少件奢侈品？
A: 1 ~ 5
B: 6 ~ 10
C: 11~20
D: 20 件以上

22. 关于新冠疫情对您的收入所造成的影响

	完全同意	同意	一般	不同意	完全不同意

疫情期间，我在收入/财政方面上受到了很大的打击					
直到现在，我在收入/财政方面上依然还受着很大的打击					

23. 关于新冠疫情对您的身心健康和情感方面所造成的影响

	完全同意	同意	一般	不同意	完全不同意
疫情期间，我在身心健康/情感上收到了很大的打击					
直到现在，我在身心健康/情感上依然还受着很大的打击					

24. 尽管一部分行业的经济因为新冠疫情受到了重创，但是据报道称，各大奢侈品牌在疫情之后都出现了各自相应产品的价位上调，对于奢侈品涨价这件事，请问您怎么看？

	完全同意	同意	一般	不同意	完全不同意
即使在疫情之后，奢侈品涨价还是可以理解					

25. 在**新冠疫情之前**，您购买奢侈品的目的是什么？

	完全同意	同意	一般	不同意	完全不同意
因为奢侈品的样式很特别，质量好					
因为我的大部分同事，朋友等都会买奢侈品，购买奢侈品是一件大家都愿意做的事					
因为奢侈品让我变得时尚，他能更好的反应我的穿着打扮					
因为我的社交媒体向我推荐当下的奢侈品的流行，然后我会遵循它们的建议					
因为我的同事，朋友的推荐，然后我会遵循他们的建议					
因为我喜欢拥有和收集奢侈品，奢侈品代表高贵和财富					

因为我对奢侈品背后的历史，文化感兴趣，购买奢侈品有助于我了解其品牌文化。					
因为奢侈品能让我在朋友和同事之间显得更引人注目，能让我在人群中有更高的辨识度 因为同事和朋友会因为我穿戴奢侈品而对我刮目相看 购买奢侈品能够让我与国际接轨，能够让我体会到我在社会中的重要性 因为不买奢侈品，会有损我在同事和朋友面前的形象					

26. 在**新冠疫情之后**，您的奢侈品消费目的与您的想法有什么改变吗？ 请在下面与第 9 问相同的选项中作答。

	完全同意	同意	一般	不同意	完全不同意
因为奢侈品的样式很特别，质量好					
因为我的大部分同事，朋友等都会买奢侈品，购买奢侈品是一件大家都愿意做的事					
因为奢侈品让我变得时尚，它能更好的反应我的穿着打扮					
因为我的社交媒体向我推荐当下的奢侈品的流行，然后我会遵循它们的建议					
因为我的同事，朋友的推荐，然后我会遵循他们的建议					
因为我喜欢拥有和收集奢侈品，奢侈品代表高贵和财富					
因为我对奢侈品背后的历史，文化感兴趣，购买奢侈品有助于我了解其品牌文化。					
因为奢侈品能让我在朋友和同事之间显得更引人注目，能让我在人群中有更高的辨识度 因为同事和朋友会因为我穿戴奢侈品而对我刮目相看 购买奢侈品能够让我与国际接轨，能够让我体会到我在社会中的重要性					

因为不买奢侈品，会有损我在同事和朋友面前的形象					

Ⅲ. 关于报复性消费的调查

报复性消费是指消费者的消费需求在某个时期或场合被限制了之后，一旦限制被解除消费者进行大量消费的行为。

27. 在**新冠疫情之后,**您存在下列的情况吗？

	完全同意	同意	一般	不同意	完全不同意
我的购物，消费欲望增强了（不仅局限于奢侈品，一般商品都包含在内）					

28. 不仅仅是这次的新冠疫情，请您评价以下，在**您的整个人生当中**，您是否存在下列想法。

	完全同意	同意	一般	不同意	完全不同意
我需要以购买更多奢侈品的方式来弥补我在疫情期间所遭受的苦难 购买了奢侈品过后，我变得更积极向上，更开心了 当经历过一些挫折，苦难之后，我会去购物来犒劳自己					

29.

	完全同意	同意	一般	不同意	完全不同意
购物使我快乐，特别是在当经历过挫折和苦难之后					

30. 您觉得下列的情况会使您停止奢侈品消费吗？

	完全同意	同意	一般	不同意	完全不同意
当奢侈品涨价，尽管涨幅被认为是合理的时候（原料，劳动力的上涨等） 当奢侈品不再有它独特的地方，换言之，很多人都拥有它的时候，即使它还是很贵 当奢侈品形象被降低以至于大部分人都可以负担得起的失手					

31. **新冠疫情期间**，不能够去商场购物让我感到_____。
32. **新冠疫情期间**，即使可以选择网上购物，但是不能够穿上奢侈品去和朋友同事见面让我感到____。

感谢您的配合！