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Young women's sustainable fashion consumption in China: A qualitative study using the theory of planned behavior

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Abstract: As the second most polluting industry in the world, the fashion industry has a critical impact on the environment. The development of sustainable fashion is conducive to reducing the environmental pollution caused by the fashion industry. China has the largest consumer market in the world, and the Chinese government and major companies have made considerable contributions to the sustainable development of the fashion industry. However, research regarding young women's attitudes towards this topic remains under-explored. This study interviewed 30 young women of different ages from different places in China. Based on the theory of planned behavior (TPB), a semi-structured interview was used as a data collection method, and thematic analysis was adopted for data analysis. This paper discusses young Chinese female consumers' attitudes towards sustainable fashion and analyzes the motivating factors and hindrance factors affecting the consumption intentions of young Chinese female consumers towards sustainable fashion. The research found that young Chinese female consumers generally hold a positive and supportive attitude towards sustainable fashion. Consumers' perceptions of sustainable fashion, their self-perceptions, and their level of green awareness all significantly impact their attitudes and purchase intentions toward sustainable fashion. Consumers feel low social pressure, and Chinese society demonstrates a high level of acceptance and praise for sustainable concepts. However, the lack of purchasing channels and choices for sustainable fashion in China and the high cost of sustainable fashion products discourage consumers from making purchases. This study will be beneficial as a reference when the Chinese government makes sustainable policies to guide consumers toward sustainable fashion consumption. This study helps enterprises select target markets in China and formulate sustainable fashion marketing strategies and targeted advertising. This study contributes to increasing consumer awareness of sustainable fashion, as well as providing reference and reflective value when consumers purchase sustainable fashion products. Finally, this study will help promote the development process of sustainable fashion in Chinese society, make contributions to reducing the waste of social resources, promoting the recycling of resources, and improving social conditions, and put forward specific solutions and feasible suggestions for the development of sustainable fashion in Chinese society.

Keywords: sustainable fashion; theory of planned behavior; young women; purchase intention; semi-structured interview

1. Introduction

During the three years of COVID-19, when humans were confined to their homes, the improvement of the environment was noticeable (Lokhandwala and Gautam, 2020). Many factors cause environmental pollution, but the fashion industry's environmental pollution cannot be underestimated. The fashion industry, from production and sales to recycling, has excessive energy consumption and

environmental pollution at every link (Hill and Lee, 2012), and the prevalence of fast fashion has exacerbated this situation. According to Niinimäki's research, the fashion industry accounts for 10% of global pollution, of which the water pollution generated during textile production and treatment accounts for about 20% of the total, the clothing industry accounts for about 10% of carbon dioxide emissions, and the natural decomposition of textiles takes 200 years to complete. In addition, the fashion industry also produces much pollution while producing raw materials (Niinimäki et al., 2020). Developing sustainable fashion is one of the effective ways to solve the environmental pollution caused by the fashion industry (Islam et al., 2021; Shafie et al., 2021). Sustainable fashion encompasses the implementation of sustainable principles across the entire fashion industry chain. It also serves as a response to the traditional fashion model, with the goal of minimizing the negative environmental impact of the fashion industry (Niinimäki et al., 2020; Rachel Arthur (UNEP), 2023). Although the Chinese government, businesses, and consumers have been working towards sustainability, the Chinese government is mostly committed to different energy transitions and upgrading different industrial structures (Hepburn et al., 2021). Companies and brands concentrate on establishing their environmental image on major social media platforms, often incorporating key information about their products in their promotional campaigns. Still, they may not go into detail about every aspect of their products. They may be more inclined to emphasize the product's core values, sustainability features, and information about environmental protection (Akhundova and Pimonenko, n.d.). There are many obstacles to consumers' cognition and consumption of sustainable fashion, such as consumers' personal preferences or prejudice against sustainable fashion and lack of time and energy to find sustainable fashion products (Mukendi et al., 2020).

As a populous country with a population of more than 1.4 billion, China has a huge demand for fashion products. At the same time, it also produces a lot of pollution, such as textile pollution. Research shows that China produces about 26 million tons of textile waste annually; the fabric utilization rate is only 85% (Yoo et al., 2021), especially in the economically and culturally developed eastern coastal areas of China. As a pioneer in the development of the light industry in China and the first region to conduct foreign trade, China's eastern coastal areas have many fashion companies, fashion shows, clothing, and textile production bases. As a result, there is a huge demand for the textile industry, but its rapid development has had serious negative impacts on the environment, such as water pollution, noise pollution, energy consumption, and chemical emissions. In Jiangsu, a populous province on China's southeast coast, the textile industry discharges 480 million tons of wastewater a year (Yu and Zhou, 2009). Therefore, compared to the inland areas, the fashion industry has a greater and more serious impact on the pollution in the southeast coastal zone (Li and Liu, 2021). The Chinese government supports sustainable fashion as an effective way to reduce pollution from the fashion industry. Under the environmental protection policy, in April 2022, the Chinese government issued the Implementation Opinions on Accelerating the Recycling of Waste Textiles, which clarified the goals for the textile waste recycling industry from 2025 to 2030 and provided specific direction guidance and behavioral standards. The "Implementation Opinions" will help improve China's resource utilization and

promote the process of environmental protection in China (R.I.S.E. Sustainable Fashion Lab, 2022).

Previous studies have focused on consumers' sustainable consumption intentions and the impact of gender, age, and cross-cultural factors on sustainable consumption and the purchase of sustainable fashion products (Jung et al., 2020; Rocha et al., 2005). Shao (2019) collected and analyzed the relevant literature on sustainable consumption behavior in China between 2007 and 2017 and pointed out that China's sustainable consumption and production governance system still has shortcomings. To achieve sustainable consumption, it is also necessary to promote the openness and transparency of environmental information and provide consumers with more reference information (Shao, 2019). Mukendi believes that the understanding of sustainable fashion in academic research is still relatively limited, mainly focusing on specific aspects such as supply chain, consumer, and retail, and there is no systematic summary of the overall research on sustainable fashion. There is also a need to examine the barriers to sustainable fashion consumption and explore how to change consumer perceptions and attitudes toward sustainable fashion (Mukendi et al., 2020).

Current research on specific groups' attitudes toward sustainable fashion consumption intentions within a single country is lacking (Mukendi et al., 2020; Shao, 2019). Therefore, the research question of this study is: What are the attitudes of young female consumers of different ages towards sustainable fashion consumption intentions in China? What factors influence young Chinese women's intentions to consume sustainable fashion products? The object of this study is mainly to explore the attitudes of young Chinese female consumers of different ages toward sustainable fashion consumption intentions. Further, it analyzes the motivating factors and hindrance factors affecting the consumption intentions of young Chinese female consumers towards sustainable fashion. The selection of Chinese young female groups of different age groups as the research object of this study is mainly considered from the perspectives of 1) young consumer groups; 2) female consumer groups; 3) Chinese consumer groups and Chinese young female consumer groups. Specific explanations are as follows:

First, the study selected young consumers from a variety of age groups because age influences attitudes toward green purchasing (Witek and Kuźniar, 2021). Consumers' motivation to consume fashion products varies significantly across age groups (Schade et al., 2016). Compared to other age groups, young consumers are more sensitive to environmental and ecological issues and more inclined to choose sustainable consumption (Mammadli, 2023). Chinese consumers have also validated this scenario. Among the consumers who buy sustainable fashion in China, the probability of accepting free plastic bags for those aged 16–25 is much lower than that for those aged 40–59. The highest percentage of sustainable fashion purchases are made by Chinese consumers aged 31–40 years old (R.I.S.E. Sustainable Fashion Lab, 2021). Based on Michael and Lucyna's research, and with reference to Cao's study on the differences in consumption among different age groups in sustainable fast fashion in China, the age breakdown of the young consumer group. The study selected young Chinese female consumers aged 18–39 as the study's samples and

further divided the 18–39 age group into two age groups, 18–25 and 26–39, for comparative analysis (Cao, 2022; Schade et al., 2016; Witek and Kuźniar, 2021).

Second, although both male and female consumers contribute differently to sustainable fashion consumption, this study chose female consumers as the study's sample because they are more concerned with fashion and environmental issues than male consumers (Rahman et al., 2020). In addition, according to the survey data, females are significantly more aware of sustainability in areas such as animal welfare, ethical wages, and environmental impact than males (Gazzola et al., 2020). Finally, compared to male consumers, female consumers are more engaged with sustainable fashion and show a higher intention to purchase sustainable fashion than male consumers (Blas Riesgo et al., 2023; Haines and Lee, 2022). The same situation also occurs among Chinese consumers, so female consumers are chosen as the samples of this study (Li et al., 2022).

Third, Chinese consumers are chosen as the target of this study because Chinese consumers and Chinese female consumers, have strong spending power (Hung et al., 2021; Rahman et al., 2020; Zhang and Dong, 2021). Furthermore, the large number of female consumer groups in China makes the research sample more diverse, with a broad research base and research value. In summary, this study chose Chinese young female consumers as the research sample, which is conducive to filling the current research gap of sustainable fashion in China and further refining the study to influence consumers' intention to purchase sustainable fashion, which will help the development of sustainable fashion in China.

To further understand the intention of young Chinese female consumers to consume sustainable fashion, this study adopts the semi-structured interview method for data collection. Hence, this study is qualitative and combined with the Chinese context. The Theory of planned behavior (TPB) has proven effective in the study of sustainable fashion (Jung et al., 2020). Therefore, this study takes the TPB theory as the basic framework and slightly modifies it to make a model. Through this model, the purchasing intention of Chinese consumers on sustainable fashion is collected, which mainly includes three aspects: attitude, subjective norm, and perceived behavior control. Through a survey of these three aspects, the study can analyze the attitudes of young Chinese female consumers toward purchasing intention of sustainable fashion products. By detailing the factors influencing the purchase intention of young Chinese female consumers for sustainable fashion. This study is expected to provide reference value for the Chinese government, enterprises, and consumers when carrying out sustainable fashion activities. This study is also expected to help enterprises select target markets in China and develop sustainable fashion marketing strategies and targeted advertising for consumers. Through this study, it is also possible to convey the consumer's inner demand for sustainable fashion to companies. This study not only enhances consumer awareness and reflection on sustainable fashion, but also serves as a valuable reference point for consumers purchasing sustainable fashion products. Finally, this study can also advance sustainable fashion in Chinese society by promoting its development and proposing suggestions for sustainable fashion development for China in the future.

2. Literature review

2.1. Sustainable fashion

After more than ten years of development, academia has no unified definition of sustainable fashion (Mukendi et al., 2020). This study considers sustainable fashion a broad term that refers to fashion products and behaviors that cause less damage to humans or the earth. It is an alternative to traditional fashion consumption and production methods, aiming to reduce the pollution and damage of the fashion industry to society and the environment. As mentioned in the introduction, Mukendi states that the current research on sustainable fashion mainly focuses on the supply chain, consumers, and retail. However, there is a certain research gap on the obstacles existing in sustainable fashion consumption and how to change consumers' views and attitudes towards sustainable fashion (Mukendi et al., 2020). In addition, there is a gap between consumers' intention to buy sustainable fashion and their actual purchasing behavior (Blas Riesgo et al., 2023; Gazzola et al., 2020; Zhang et al., 2021). Therefore, it is crucial for the development of sustainable fashion to explore consumers' attitudes towards sustainable fashion and the factors that affect consumers' purchase intention for sustainable fashion. Existing research points out that the barriers and factors affecting the purchase intention and purchase behavior inconsistency of sustainable fashion consumers mainly include the following five points: 1) Lack of environmental awareness and awareness of sustainable fashion; 2) Consumers perceive the high price of sustainable fashion; 3) Consumers believe that sustainable fashion design is not fashionable and does not meet the aesthetic needs of consumers; 4) Consumers lack understanding and purchasing channels for sustainable fashion products; and 5) Lack of trust in the sustainability claims of manufacturers (Brandão and Costa, 2021).

The same situation is playing out in China. According to the 2021 Chinese Sustainable Fashion Consumers' Behavior Patterns, 79% of Chinese respondents have recognized the pollution of the modern fashion industry, and 93% of respondents agree that they should buy or use sustainable products. However, only 50% of respondents bought one (R.I.S.E. Sustainable Fashion Lab, 2022). Chinese consumers usually consider the balance between price and quality when they consume sustainable fashion and are more willing to pay a reasonable price for high-quality green products (Brandão and Costa, 2021). Moreover, factors affecting consumers' sustainable fashion consumption vary in different age groups. Chinese consumers aged 20 and below pay more attention to product prices, followed by product design. Chinese consumers between the ages of 21 and 30 focus on design first, followed by price. Chinese consumers between the ages of 31 and 40 focus on design first, followed by materials. Younger consumers under 30 are also concerned about the product life cycle, ranking it as their top concern when buying sustainable fashion products (R.I.S.E. Sustainable Fashion Lab, 2021). So, there is still a large room for improvement in the development of sustainable fashion in China. Therefore, it is to further refine the study of the barriers that exist in the consumption of sustainable fashion by Chinese consumers, to study the factors that influence the purchase intention of sustainable fashion by Chinese consumers, and to investigate

the perceptions and attitudes of Chinese consumers towards sustainable fashion. These efforts will not only benefit the development of sustainable fashion in China, but also contribute to its overall growth. It is the responsibility and obligation of contemporary human beings to make environmental protection no longer a propaganda slogan but to put it into practice in every concrete step.

2.2. Theoretical foundation

This study adopted the planned behavior theory (TPB) proposed by Ajzen based on the theory of reasoned action (TRA) theory and investigated how the three main factors of the TPB model (Attitude, Subjective norms, and Perceived behavioral control, as shown in **Figure 1**) affected Chinese young women’s purchase intention of sustainable fashion products. It is reasonable to use this theory for research. There are three reasons: First, the purpose of TPB is to help explain and predict people’s intentions and behaviors (Ajzen, 2015). Second, Ajzen believes that TPB can more accurately predict the realization of intentions and goals than TRA, and the perceived behavioral control (PBC) in TPB model has a significant impact on prediction (Ajzen and Madden, 1986). Ajzen again proposed in 2014 that the components of TPB can predict an individual’s intentions (Ajzen, 2015). Finally, in current recent research, Matthew successfully researched Chinese consumers’ intention to purchase green products using the TPB model (Liu et al., 2020). Theresa and Christopher also succeeded in using the TPB model to comprehensively explain the relationship between intentions to purchase sustainable fashion and actual purchase behavior (Rausch and Kopplin, 2021). Piyanoot has also successfully explored the drivers of consumer purchases of green products using the TPB model (Kamalanon et al., 2022). Therefore, it is reasonable for this study to use TPB to study the influence of young Chinese women’s intention to purchase sustainable fashion products.

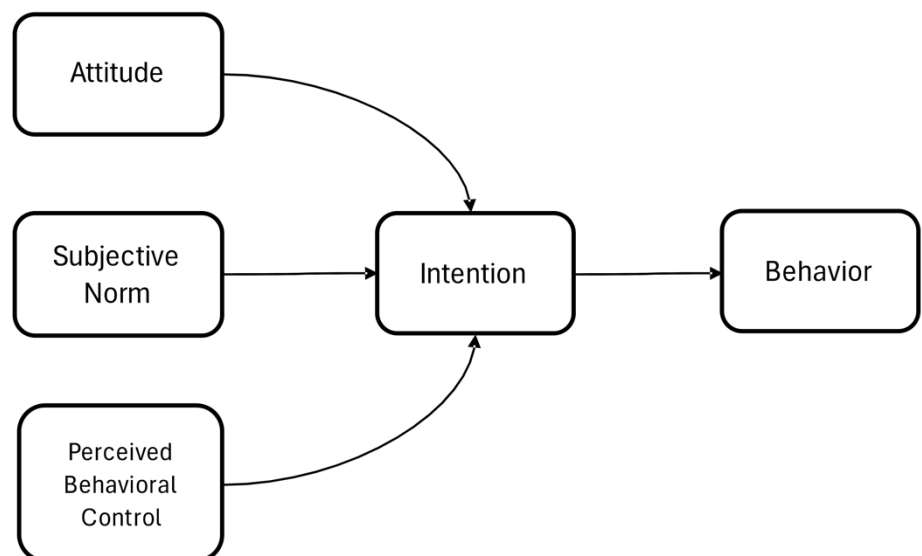


Figure 1. Previous framework by Ajzen (1991).

2.2.1. Attitude

Attitudes are often seen as an important predictor of intentions (Ajzen et al.,

2018). In TPB, attitude is the degree to which a person likes or dislikes the behavior (Ajzen, 1991). According to previous research, attitudes are positively correlated with people's purchase intentions (Wongsaichia et al., 2022), which means that if consumers have a positive attitude towards sustainable fashion products, then consumers will be more inclined to buy sustainable fashion products. Consumers' income level, product price, culture, age, hygiene concerns, and familiarity with the purchasing channel all influence consumer attitudes (Silva et al., 2021; Zhang et al., 2021). Therefore, this study will examine the thoughts, feelings, motivations, and obstacles experienced by young Chinese women who engage in sustainable fashion behaviors, with the aim of determining their attitudes towards sustainable fashion.

2.2.2. Subjective norm

Subjective norms refer to the social pressure a person feels when deciding to carry out or not carry out an action (Ajzen, 1991). This pressure can come from various aspects of society, such as parents, friends, and religious beliefs. Previous studies have demonstrated that social identity, background factors, personal experiences, and social pressures influence individuals' subjective norms (Ajzen et al., 2018; Liu et al., 2020). Therefore, the main focus of this study will be on normative beliefs and motivations to comply, with the aim of understanding the extent of social pressure on Chinese young female consumers to practice sustainable fashion behavior, and how this pressure influences their intentions for sustainable consumption.

2.2.3. Perceived behavioral control (PBC)

PBC refers to the perceived ease of action, and PBC is influenced by past perceptions, experiences, and expected obstacles (Ajzen, 1991). The PBC level will be high if the consumer has sufficient experience, resources, opportunities, and low barriers. On the contrary, if consumers lack experience, resources, opportunities, and barriers are high, the PBC degree is low. Previous research indicated that background factors, an individual's actual control over behavior, social support and exposure to information, environmental factors, and moods and emotions all have an impact on PBC (Ajzen et al., 2018). Due to the lack of visibility and accessibility, consumers may not be aware of sustainable fashion products and may not be able to purchase them easily, as noted by Mukendi in her study (Mukendi et al., 2020). Therefore, this study will focus on four aspects: experiences, resources, opportunities, and self-efficacy to investigate the degree of PBC among young Chinese female consumers.

2.2.4. Intention

Intention is an individual's psychological disposition toward a behavior or decision in a given situation (Sun et al., 2021). It also refers to an individual's plan or determination for a particular behavior (Ajzen et al., 2018; Ajzen and Madden, 1986). Intentions, attitudes, subjective norms, and perceived behavioral control interact with each other and influence each other (Ajzen et al., 2018). Ajzen points out that individual intentions can be predicted by exploring attitudes, subjective norms, and perceived behavioral control (Ajzen and Madden, 1986). Sharma's study points out that consumers' green purchase intentions are influenced by a variety of factors, including personal green attitudes, environmental awareness, knowledge

level, and perceived quality and price of the product (Sharma, 2021). Jana also pointed out that consumers’ environmental commitment, consumers’ perceptions of eco-products, and consumers’ perceptions of green barriers all have a positive influence on green purchase intentions. Among the green barriers are higher product prices, inconvenient purchasing channels, difficult access to information, and uncertainty about product performance (Hojnik et al., 2020). In addition to this, the consumer’s shopping experience also influences their purchase intention (Li et al., 2021).

2.2.5. Behavior

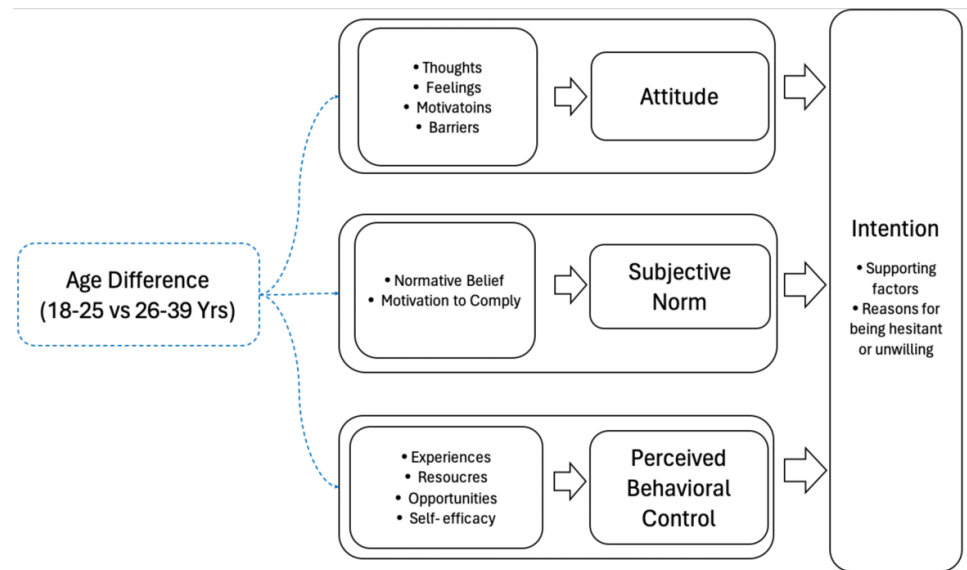


Figure 2. Proposed framework by author.

Behavior is defined as an individual’s specific actions. Behavior is influenced by attitudes, subjective norms, PBC, and intentions(Ajzen et al., 2018; Ajzen and Madden, 1986; Mark Conner, 2020). Intention is a direct precondition for behavior (Ajzen, 2002). PBC acts as a moderator between intentions and actual behavior (Ajzen et al., 2018; Ajzen and Madden, 1986; Ajzen Icek, 2002). However, it is worth noting that there is no necessary relationship between consumers’ intentions and consumers’ actual consumption behavior, and the measurement of intentions may not necessarily predict actual behavior. The change of intentions may not necessarily bring about changes in behavior (Ajzen, 2020). Ajzen (2015) also notes that some unexpected surprises or obstacles prevent people from carrying out their intentions. Previous studies have shown that despite positive attitudes and a high intention to purchase sustainable fashion, there is still a gap between consumers’ intentions and actual purchasing behavior. (Jung et al., 2020; Kamalanon et al., 2022; Rausch and Kopplin, 2021; Yoo et al., 2021) The same situation exists with Chinese consumers(Jung et al., 2020; R.I.S.E. Sustainable Fashion Lab, 2021). Theresa and Cristopher point out that consumers’ concerns about “greenwashing” affect their attitudes and, consequently, their intentions. Secondly, consumers’ perceived aesthetic risk negatively affects the relationship between intention and behavior (Rausch and Kopplin, 2021). As mentioned in the introduction, the research questions of this study are “What factors influence young Chinese women’s

intentions to consume sustainable fashion products?” Therefore, sustainable fashion purchasing behavior is a prerequisite for screening in this study, not a necessary condition or outcome. However, consumers need to have a wealth of experience in buying sustainable fashion. These experiences can be successes or failures. Therefore, this study has modified the TPB model, excluding the behavioral item from the study’s research framework. The study will concentrate on the factors that influence consumer intention. (Shown in **Figure 2**.)

2.2.6. Age differences and purchase intention

Age has a moderating effect on consumers’ purchase intentions (Wongsaichia et al., 2022). The education level, economic status, social experience, and environmental life experiences of consumers of different age groups will affect their purchase intention for sustainable fashion (Musova et al., 2021; Schade et al., 2016). As mentioned in the introduction, this study selects young Chinese female consumers aged 18–39 as the research population and further subdivides the 18–39 age group into two age groups, 18–25 and 26–39, for comparative analysis.

Consumers between the ages of 18 and 25 have a weaker sense of self-identity, and their peers or peer groups can easily influence their behavior (Schade et al., 2016). Consumers in this age group pay less attention to green products, are also the most skeptical about the environmental protection effect of green products and are not satisfied with the promotion of green products (Witek and Kuźniar, 2021). It is worth emphasizing that the reason for choosing the 18–25 age group instead of the 16–25 age group is based on the consideration of social responsibility and the maturity of consumer behavior. Firstly, in China people typically view the age of 18 as the legal boundary of adulthood, signifying increased autonomy and obligations in terms of legal and social responsibilities. Second, from the perspective of consumer behavior, the age of 18 marks the stage when many people finish high school and enter college, when their purchasing decisions begin to become more independent and conscious. On the other hand, 16-year-olds might be overly adolescent, with their consumption choices primarily shaped by their family and peers, and less indicative of their own maturity and capacity for independent thought. As a result, this study chose 18 years old as the inclusion criterion, which is more conducive to exploring the differences in consumption behavior and social responsibility of adult groups (Cao, 2022).

Consumers in the 26–39 age group have gradually increased their self-identity; their behavior is less affected by peer groups; and they prefer to show their differences to others (Schade et al., 2016). Consumers in this age group pay more attention to green products and perform well in terms of purchase intention and understanding of green products. In addition, consumers in this age group have a higher frequency of buying green products and are willing to pay higher prices for green products (Witek and Kuźniar, 2021). So, this study selects young Chinese female consumers aged 18–39 as the research population and further subdivides the 18–39 age group into two age groups, 18–25 and 26–39.

3. Research methodology

This study investigates the factors influencing the attitudes of young Chinese

women of different age groups towards sustainable fashion purchase intentions. To better understand the views and attitudes of young Chinese female consumers towards sustainable fashion, this study adopts a qualitative research method and purposeful sampling, utilizing semi-structured interviews combined with the TPB model to obtain more information about consumers' intentions (Oranga and Matere, 2023). This study developed a questionnaire that drew from existing research on sustainable fashion, utilizing TPB theory, the TPB questionnaire model, and a 9-point Likert scale. After the relevant training of semi-structured interviews, the researcher interviewed 30 young Chinese female consumers of different ages from different regions of China who met the interview conditions.

3.1. Sample

This study is a comparative study of young female consumers of different age groups towards sustainable fashion purchase intentions in China. Therefore, the inclusion and exclusion criteria of the research objects in this study are 1) The consumer must have some ability to pay; 2) consumers must have experience in sustainable fashion; 3) Consumers must have certain environmental awareness and sustainable fashion awareness; 4) Consumers must be 18–39 years old; 5) It must be a young Chinese female consumer with Chinese nationality.

In order to more accurately capture the volunteers' subjective awareness of sustainable fashion, a 9-point of Likert scale was used in this study. This study chose the 9-point Likert scale for three reasons. First, the scale with odd-numbered options performed better in terms of reliability and validity, while the scale with even-numbered options guided the participants (Kusmaryono et al., 2022). Secondly, this is because a rating scale with an odd number of response options greater than 5 is more effective in terms of reliability and validity (Abdul Malik et al., 2021; de Rezende and de Medeiros, 2022; Kusmaryono et al., 2022). In the end the 9-point Likert scale is considered to be the best choice for producing optimal reliability and validity in confirmatory factor analysis (CFA) (Abdul Malik et al., 2021). Therefore, this study used a 9-point Likert scale to investigate the volunteers' knowledge and awareness of sustainable fashion from the perspectives of raw materials, production and processing, and recycling, respectively. The judgment criterion for screening the target participants was that each question answered by the volunteers needed to reach grade 7 of the 9-point Likert scale. This is because the 9-point Likert scale has a high overall validity, and a higher rating scale can give more detailed feedback on participants' attitudes, which helps improve the reliability and validity of data (Abdul Malik et al., 2021; de Rezende and de Medeiros, 2022; Kusmaryono et al., 2022; Martín et al., 2018). As a result, researchers consider volunteers who score greater than or equal to 21 on the three questions to be the target interviewee.

According to Alam's research, a sample size of 20 is sufficient for most qualitative studies (Alam, 2021). However, Clive noted in his study that 20 samples were too small for theory-based qualitative research methods and 40 samples were too large, so he suggested collecting samples 20–30 times for basic research (Boddy, 2016). This study, despite strict screening, collected a total of 30 participants of 18–39 years old and divided them into two groups of 18–25 old and 26–39 years old,

each consisting of 15 participants, to ensure that the sample did not include any vulnerable groups.

3.2. Data collection

This study adopts an online semi-structured interview survey for data collection because online surveys can effectively improve the efficiency of data collection and reduce the cost of data collection (Gosling et al., 2004). In order to minimize data bias, the researchers recruited volunteers on different Chinese social media platforms (WeChat, Weibo, TikTok, and Xiaohongshu) based on data triangulation (Bans-Akutey and Tiimub, 2021; Carter et al., 2014). After contacting the volunteers, the researcher will give the questionnaire to screen the volunteers. Those who completed the questionnaire and scored more than 21 points will be considered the target interviewees. The researcher conducted the interviews after obtaining the consent of the target interviewees. **Figure 3** illustrates the data collection process.

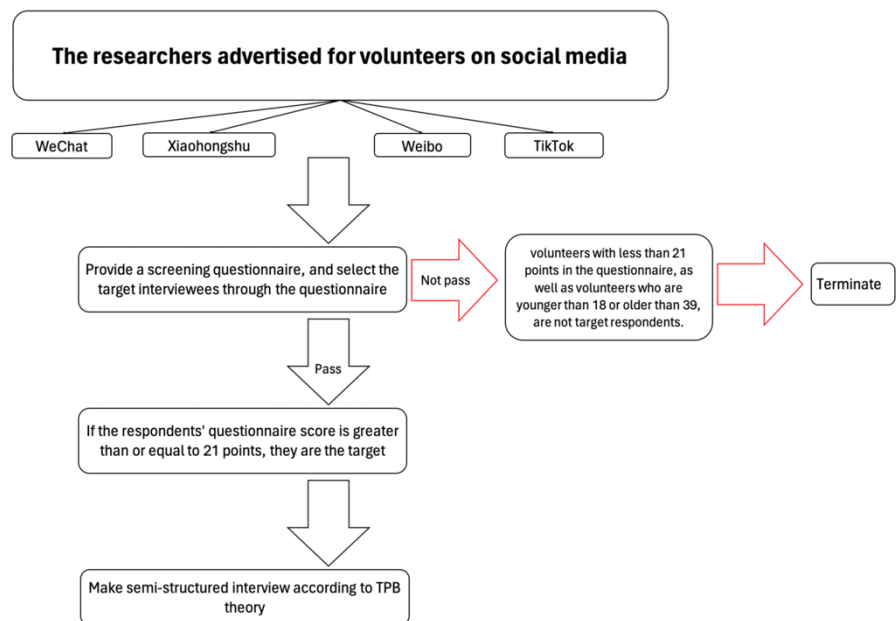


Figure 3. Data collection framework by the author.

3.2.1. Survey instrument

Based on TPB theory, the semi-structured interview method, and relevant knowledge of sustainable fashion, the researchers designed two questionnaires: one is a survey screening instrument to screen out the target participants, and the other is an interview questionnaire to investigate the purchasing intention of sustainable fashion among young Chinese female consumers. The researchers used the screening questionnaire to identify the target volunteers, and the interview questionnaire helped researchers better understand the purchase intentions and attitudes of young Chinese female consumers toward sustainable fashion. To increase the questionnaire's reliability and validity, the researcher designed it using Ajzen's TPB questionnaire model, the 9-point Likert scale, existing research on consumer intentions, and related research on semi-structured interviews (Ajzen, 2020; Ajzen Icek, 2002; Aung et al., 2021; Naz et al., 2022). The researchers also pilot-tested the questionnaire before the

official visit. Through testing, the researcher identified and corrected potential problems with the questionnaire, such as improving the wording and structure to increase the participants' understanding of the questions. Improving clarity during the interview helps increase the validity of the participants' answers. Replace proper nouns with words that the participants can easily understand. Experts will evaluate the questionnaire after the pilot test to confirm its relevance and validity. After the above steps are completed, the researcher will use the questionnaire during actual interviews. The questionnaire is divided into two parts: the first part contains basic demographic information such as age and education level of volunteers. The second part was designed to investigate the volunteers' awareness of sustainable fashion. As mentioned in sample 3.1 above, in order to more accurately capture volunteers' subjective awareness of sustainable fashion, this study adopts a 9-point Likert scale to select the target interviewee with a score of 21. The volunteers receive an invitation to participate in the interview after becoming the target interviewee. To facilitate questionnaire collection and collation, researchers will use Questionnaire Star (<https://www.wjx.cn>) to create a link to the online survey screening questionnaire.

The interview questionnaire consists of two parts: the first is for the interviewee to talk freely about her experience and views on sustainable fashion; the second is for the researchers to design relevant questions based on the TPB theory using the three factors that affect the intention. Please refer to the Appendix for details.

3.2.2. Investigation process

The investigation process mainly includes the following steps:

- 1) Before the volunteers fill in the questionnaire, the researcher will inform the volunteers of the identity of the researcher and provide relevant materials and evidence, which is conducive to increasing the volunteers' trust in the researcher and contributing to the subsequent research work.
- 2) The researcher will elucidate the pertinent content related to sustainable fashion to the volunteers. The purpose of this work is to ensure that the volunteers fully comprehend the research background.
- 3) The researcher provided the volunteers with an explanation of the purpose of data collection, the intended use of the data, the study's non-commercial nature, the confidentiality of the questionnaire, and a promise to completely destroy all forms of data upon completion of the study.
- 4) The researchers distributed questionnaires to the volunteers.
- 5) The researcher sends an interview invitation to the target participants who pass the screening questionnaire and determines the specific interview time.
- 6) Before the interview begins, the researcher will emphasize again to the participants that the entire interview needs to be audio-recorded and reiterate to the participants the key content of informed consent (The main content states that the researcher conducted this study anonymously, did not require the participants to provide their names or other specific private information, and will keep all interview content strictly confidential. Participants have the right to terminate and withdraw from the interview at any time, and participants also have the right to recycle and delete data). The researcher will only proceed with

the formal interview after obtaining the interviewee's verbal consent.

- 7) Considering that the research topic is related to environmental protection; to avoid the participants subconsciously choosing the answer expected by society, the researchers will ask the participants to answer the question according to their real thoughts.
- 8) At the end of the interview, the researchers would express their thanks to the interviewees again.

3.3. Data analysis

Audio recordings and field notes will be used to transcribe all interviews verbatim. Data will be coded by the relevance of emerging concepts and themes based on their frequency. A deductive coding approach is based on participants' unique characteristics and behaviors, as well as facilitating conditions, challenges, and obstacles regarding sustainable fashion. An inductive strategy will enhance the coding approach when new subjects appear throughout the investigation. The researchers will use NVivo 14 for data analysis. Compared with traditional qualitative research data analysis, NVivo 14 can help researchers code quickly, provide visual data, and effectively improve the efficiency of data analysis (Ashraf Malik et al., 2012). The final findings will be summarized in the results and discussion.

4. Results

More than 44,373 people viewed the recruitment information for this study, and 348 volunteers submitted questionnaires in total. From these, the researchers selected 30 eligible participants and conducted semi-structured interviews with them. Based on green market segmentation and consumer profiling of Deepak and the information obtained from the interviews for this study (Jaiswal et al., 2021), the participants were categorized into three groups in this study: 1) Ordinary consumers: While they possess a certain level of awareness about environmental protection and sustainable fashion consumption, they typically lag behind in this area. They often realize that they have engaged in sustainable fashion consumption only after they have purchased sustainable fashion products. The ordinary consumer learns about sustainable fashion only after they have completed their sustainable fashion purchases. 2) Senior consumers: Senior consumers have a high awareness of sustainable fashion and rich experience in sustainable fashion consumption. 3) Consumers involved in the fashion industry: these consumers are those who work in the sustainable fashion sector, possessing extensive expertise in both the fashion industry and sustainable fashion consumption.

Table 1 summarizes the demographic characteristics of the participants. It can be clearly seen that the participants mainly come from Yunnan, Shanghai, Guangdong and Beijing. Secondly the educational level of the participants, from which it can be seen that most of the participants in the two age groups have bachelor's degrees, while a small number of participants aged 26–39 have doctoral degrees or above. The gap between participants with an undergraduate degree and a

master's degree in the two age groups is not large, with a difference of one person for each.

Table 1. Demographic profiles of Semi-structured interview participants ($n = 30$).

Demographic variable	Category	Number of participants in two customer segments	
		Age 18–25 ($n: 15$)	Age 26–39 ($n: 15$)
Province	YUNANNAN	3	2
	SHANGHAI	1	2
	GUANGDONG	3	0
	HUBEI	2	0
	FUJIAN	1	1
	BEIJING	2	1
	SHANDONG	1	1
	SICHUAN	2	0
	JIANGXI	0	1
	HENAN	0	1
	HEBEI	0	1
	ZHEJIANG	0	2
	GUANGXI	0	1
	JIANGSU	0	1
SHENGZHEN	0	1	
Education level	Bachelor's degree	10	9
	Master's degree	5	4
	Doctor's degree or above	0	2
Income	0–1500 Yuan	3	0
	1501–3600 Yuan	4	2
	3601–4800 Yuan	3	2
	4801–7000 Yuan	4	2
	7001–10000 Yuan	0	3
	10001–17000 Yuan	1	2
	17001–32000 Yuan	0	4
Occupation	Student	10	2
	Private sector employee	3	7
	Public sector employee	1	0
	Business owner	0	4
	Other	1	2
Frequency of purchasing fashion products per month	1 item per month	8	6
	2 items per month	6	3
	3 items per month	1	3
	4 items per month	0	1
	≥ 5 items per month	0	2

Source. Data adapted from authors (2024).

The income of the participants in the two age groups, with those aged 18 to 25 earning between 0 and 17,000 yuan and those aged 26 to 39 earning between 1501–32,000 yuan. It is worth noting that in the range of 7001–10,000 yuan, there are only participants aged 26–39 and no participants aged 18–25. The same situation also appears in the 17,001–32,000-yuan range.

Most of the participants in both age groups were students, followed by private sector employee and business owner, and last is other and public sector employee. Most of the participants in the two age groups purchased sustainable fashion products between one and two times per month, and only two participants purchased sustainable fashion products five or more times per month.

In addition, the researchers explored the factors influencing young Chinese female consumers’ purchase intention towards sustainable fashion based on the TPB theory (attitude, subjective norms, PBC) summarized below. Example quotes for each theme are shown in **Tables 2** and **3**.

Table 2. Themes identified through in-depth interviews with consumers: 18–25 years old.

TPB	Theme	Quotations
	Purchase difficulty	I think there are fewer sustainable fashion buying platforms and styles of sustainable fashion products, I don’t even know where to buy them from. —CN2
		Channels to buy sustainable fashion are not very popular. —CN9
	Aesthetic taste	The styles of sustainable fashion products must be within my favorite range to buy them. —CN1
		I always looking for sustainable fashion products with a vintage feel —CN10
		Sustainable fashion products must meet my aesthetic needs. —CN11
		I’d be more than happy to buy it if it was designed to fit my aesthetic. —CN3
	Mistrust of the business	I first consider whether the shape of a sustainable fashion product matches my aesthetic. —CN14
		I consider the authenticity of sustainable fashion products when I make a purchase. —CN10
		I go through different channels to find out if the product is truly sustainable or if it has a sustainable label but is not environmentally friendly before I buy it. —CN5
Attitude	Perception of the sustainable fashion product	I would do a basic understanding of this product through various sources before purchasing. —CN5
		I would start my purchase of this sustainable fashion product by talking to the salesperson about the basic information about this product. —CN7
	The practicality of sustainable fashion	Before I buy a sustainable fashion product I will understand its value first, such as aesthetic value, environmental value. —CN4
		I’m still very willing to buy sustainable fashion products as a pragmatist. —CN12
		If this product is flawed in function and design or has a lot of special requirements when I use it, I will pass on the purchase. —CN3
		I will consider this sustainable fashion product when purchasing it durable or not. —CN7
	Sustainable fashion brands	I would consider the practicality of this product when I buy it. —CN9
		When I’m choosing products for sustainable fashion, I’m going to choose more practical products and I’m going to put more attention on the practical value of the product itself. —CN4
		I would focus more on brands in this category that combine sustainability with traditional culture. —CN13
	Hygiene condition	The reputation of the brand is also important. —CN2
		The original vision of the brand is also very important. —CN3
		I would consider the hygiene of vintage clothing when making a purchase. —CN10
		I don’t have any clear barriers to buying sustainable fashion products either, mainly the hygiene of the products. —CN8

Table 2. (Continued).

TPB	Theme	Quotations
Attitude	Health consideration	I would choose materials that are comfortable and won't affect my health. —CN1
		I would choose products with natural crops as raw materials; I feel that such materials are good for my body. —CN15
		It can't produce harmful substances; it has to be good for our skin or health. —CN2
		I would also consider whether this product could be harmful during the manufacturing process. —CN9
		I will consider whether the product is processed rigorously enough and formally enough when I buy it. Do I need to take some potential risks? —CN4
	Environmental protection	I want to do my part to protect the environment. —CN1
		I pay for ideas I agree with. —CN11
		Contribute to the cause of environmental protection. —CN12
		Protecting the environment is my motivation for buying sustainable fashion. —CN14
	The price of sustainable fashion	Protecting the environment is most important. —CN2
		I would think about the fact that this product protects the environment before purchasing it. —CN6
		I feel like any product that has the label sustainable is going to be more expensive. —CN14
		If this product is priced right and secondly it is a sustainable product. I'd feel great about it. —CN3
		I'm buying it mainly for environmental reasons. —CN6
	Material and quality of the product	I can accept a slightly higher price for sustainable fashion products, but if it's too high, I won't buy it. —CN7
If a sustainable fashion product costs more than I can afford to pay for it, I won't buy it. —CN9		
I would consider what sustainable materials are used in this product. —CN14		
Consumer needs	I would ask the salesman what material this product is made of and if it is easily damaged or not. —CN7	
	I would consider the quality of this product more than my responsibility to protect the environment. —CN13	
	My personal needs take precedence, and I will consider other aspects only after my needs have been met. —CN13	
Subjective norm	Rarely recommended	The first thing I think about when buying sustainable fashion products is I need it or don't need it. —CN9
		The reason I buy sustainable fashion is I need the product. —CN8
		My family, and friends who have surrounded me, have awareness of environmental protection, but they may not know much about sustainable fashion. —CN13
	Rarely stopped	No one has recommended sustainable fashion products to me yet. Because people know less about eco-friendly product brands. —CN8
		I have a lot of friends who are design students like me, and they would recommend me some sustainable fashion products. —CN7
		I feel that the word is not very popular in my daily life, and I don't have frequent see it. —CN4
		My previous roommate she like vintage clothing very much, she recommended some vintage shops to me. —CN9
	Rarely stopped	They have not stopped me from buying sustainable fashion products. They are less likely to regulate my purchasing choices. —CN2
		There is a blockage, I think it's because they don't know about sustainable fashion, they haven't used sustainable fashion products, and they don't know much about the pollution in the garment industry. —CN5
		People generally don't overly interfere with other people's purchasing decisions. —CN1
		My friend won't stop me from buying it, but we'll talk about the brand is guilty of greenwashing or not and so on. —CN13
		People will not interfere with my purchasing decisions. —CN6

Table 2. (Continued).

TPB	Theme	Quotations
Perceived behavioral control	Lack of knowledge about sustainable fashion	I think somehow there is a closed loop of information, where the practitioners in the relevant industries are better informed, and the average consumer has a harder time accessing information about sustainable fashion. —CN11
		I think I know less, but I absolutely refuse to waste it. —CN12
		I don't have a deep understanding of sustainable fashion because there is less promotion of sustainable fashion products by businesses. Basically, I buy sustainable fashion products in a state of ignorance. —CN1
	Experience	I don't know much about sustainable fashion because there is not much publicity about sustainable fashion, so ordinary consumers like me don't know much about it, maybe people who are engaged in related industries will know more about it. Secondly, I think the channels to buy sustainable fashion products are not easy to find. —CN3
		I have never heard this word in my daily life, and the promotion of sustainable fashion is not much. Secondly, it has the concept of green environmental protection, which I think is not suitable for my age group to consume. —CN6
		I think the experience is very good. —CN10
Difficult to buy	I have purchased a sustainable shirt which is comfortable to touch. —CN11	
		I bought a pair of running shoes made of biodegradable foam, which are more comfortable, and I'd like to try them again next time something new comes out. —CN14
	I have purchased a biodegradable dress made of linen while travelling and it is very skin-friendly and feels great. —CN3	
		I have purchased a nylon bag which is made from recycled fibers, it is perfect for the hot season and very durable. —CN7
Convenient online shopping	Sustainable fashion products aren't something you can freely buy if you want to. —CN11	
	When purchasing in China, the information about the product is not very clear and consumers cannot clearly understand the product. —CN13	
	As a newcomer to buying sustainable fashion, I find it difficult to buy, I am not very clear about the production model of sustainable fashion, the buying channels, and the specific use of the products. —CN6	
		I think sustainable fashion products are not very easy to find. —CN7
		I think there are very few platforms for buying sustainable fashion, and you don't know where to start to get the clothes or whatever you want. —CN2
		It is still convenient to search and buy from the relevant platforms online. —CN8
		It is still quite easy to buy sustainable fashion products because China's online shopping system is still excellent. —CN12
		Nowadays, the Internet is more developed, and various social media also provide opportunities and channels to learn about it. —CN15

Source. Data adapted from authors (2024).

Table 3. Themes identified through in-depth interviews with consumers: 26–39 years old.

TPB	Theme	Quotations
Attitude	Environmental protection	I think I am more environmentally conscious; I think sustainable fashion clothes are more comfortable to wear and sustainable fashion clothes have a longer lifespan, which helps to protect our environment. —CN16
		When I buy and use sustainable fashion products, I feel like I have become an advocate and practitioner for protecting the environment. —CN21
		In fact, my main motivation for purchasing sustainable fashion products is to reduce waste and cut down on trash output. —CN22
		Choosing sustainable fashion products is conducive to reducing waste. In fact, a lot of resources are wasted in real life. I think this situation is still quite a pity. —CN30
		I like to put this concept into practice in my life, and I would like to replace all the food and drink in my life with animal-friendly, environmentally friendly, and other sustainable products. —CN23

Table 3. (Continued).

TPB	Theme	Quotations
		If the premium for a sustainable fashion product is too high, I won't buy it. —CN16
		Sometimes I'm more worried that because it's a sustainable product, it's going to be more expensive than a normal product —CN17
	The price of sustainable fashion	I am very passionate about protecting the environment, and I will choose products that are less polluting to the environment in my daily life. I think most people often struggle with the price of products. —CN18
		If the price of a sustainable fashion product is too high for my budget and there are equivalent alternatives, I will switch to a non-eco-friendly product. —CN19
		If the price of this product fits my budget, the design is more unique, and the material looks different from the ordinary material, then I still prefer to buy this kind of product —CN24.
	Purchase difficulty	There are so few sustainable fashion product options and so little information available. —CN18
		I don't find it very convenient to buy sustainable fashion products. Sustainable fashion products are also not available everywhere. —CN23
		I think the public knows very little about eco-bazaars for sustainable fashion. If you don't know where to buy you have no way to buy. —CN28
	Aesthetic taste	My motivation for buying sustainable fashion products is that it fits my aesthetic. —CN20
		I prefer to buy second-hand clothes that fit my aesthetic. —CN25
		I hope I will become more good-looking when I wear it. —CN27
		If the style of this product is particularly colorful, this would prevent me from buying it. —CN19
Attitude	Mistrust of the business	I feel that going to a specialized shop or a more trustworthy location for sustainable fashion products can provide a guarantee of quality. —CN16
		Unreliable businesses would make me hesitant or unwilling to buy sustainable fashion products. —CN18
		Brands with greenwashing behaviors are a barrier that prevents me from buying sustainable fashion products. —CN22
		I would be cautious of brands with a lot of marketing. I would explore if they were making sustainable fashion products. —CN29
	Family education	The concept of environmental protection I have received since childhood will make me feel more responsible for environmental protection, thus increasing my desire to buy sustainable fashion products. —CN17
		My family education has made me particularly passionate about environmental protection. —CN18
	The practicality of sustainable fashion	If a sustainable fashion product is not practical, I would consider not buying it. —CN21
		The unreasonable design of a sustainable fashion product is one of the reasons that stopped me from buying it —CN26
		The fact that this product is practical and cost-effective is my main motivation for buying it. —CN28
		People must buy this product because it is useful to them, whether it provides emotional or functional value. —CN30
	Sustainable fashion brands	If I don't buy sustainable fashion products, it's probably because I've learned something about the brand in the news that gives me a bad impression. —CN27
		Generally, if the brand is good. The fabrics and after-sales of the brand will good too. —CN25
	Health consideration	I will consider the impact of this product on my safety and health before making a purchase. —CN20
		Because sustainable fashion sometimes uses some new technologies, I will be more concerned about whether it will be hazardous to my health after long-term use. —CN27
	Experience	When I buy clothing products, I pay more attention to how comfortable the experience of wearing them feels. —CN18
		The material of sustainable fashion clothes is more comfortable to wear. —CN19
		I would consider not buying sustainable fashion products if they are not comfortable. —CN21

Table 3. (Continued).

TPB	Theme	Quotations
Attitude	Experience	I would consider the comfort level of fashion products before purchasing them. —CN25
	Consumer needs	Sustainable fashion products must be able to fulfill my needs, which is my main motivation for buying them. —CN20 I don't buy a sustainable fashion product just because it's a sustainable fashion product. I buy it because it meets my consumer needs. —CN28 If the product meets my functional needs well and is sustainable, then I will feel very happy. —CN30
Subjective norm	Rarely stopped	No one has ever stopped me from buying sustainable fashion products because I am completely in charge of my purchases. —CN28 No one is stopping me from buying sustainable fashion. Because I achieved financial freedom. —CN18 It didn't stop me from buying it, but my mum had raised a query about the quality of the shoe. She said I was buying it as it was made from scraps, so can the quality of this shoe be guaranteed? —CN17 No one has ever stopped me from buying sustainable fashion products. Because it's a hobby, other people only care about whether it looks good. How does it look? How does it feel? —CN25
	Rarely recommended	I am free to buy sustainable fashion products, and no one will stop me from buying them. Maybe it's because we have different aesthetics. They might say the dress doesn't look good, but it won't stop me from buying it. —CN27 My friend and I recommended this lipstick replacement pack, and I think it's very useful and eco-friendly. —CN17 My friends know that I prefer sustainable fashion products. So sometimes, when they travel or come across sustainable fashion products, they buy them for me. —CN22 My colleague once recommended me eco-crafted jeans, and the wearing experience is very comfortable. —CN25 I do not have any recommendations, as I live in a small city, and not many people around me are exposed to sustainable fashion. —CN19 The people around me don't put much effort into this aspect of sustainable fashion, but I will share information about sustainable fashion with my colleagues. —CN26
Perceived behavioral control	Difficult to buy	It takes a lot of deliberate searching to find sustainable fashion products. —CN23 There are still fewer sustainable fashion products in China, so it is more difficult to buy them. —CN22 The way to buy sustainable fashion products is not easy to find, like some sustainable cosmetics, or green organic cosmetics, they have their own dedicated website. Not just any supermarket that sells them. Therefore, if the consumer is not very clear about the purchase route, it is difficult for her to buy sustainable fashion products. —CN17
	Convenient online shopping	Easy to buy because online shopping is more popular. —CN16 Online shopping is easy. —CN26
Perceived behavioral control	Narrow channels of understanding	Since I'm studying this area myself, I would know more about sustainable fashion and pay more attention to sustainable fashion. However, it may not be easy for other consumers to learn about sustainable fashion. —CN29 I am not exposed to sustainable fashion products or brand promotion in my daily shopping. While China is more focused on sustainability in industry and agriculture, the fashion industry has received little publicity. — CN24 People living in China's first-tier cities will know more about sustainable fashion, and they will have more channels to learn about sustainable fashion. However, people in some remote areas may not know much about sustainable fashion. —CN30 I feel like it's hard to find some good sustainable brands in the country. —CN22 Sustainable fashion fabrics or brands need to be searched for and learned on your own, and there is less content about them. —CN27
	Experience	I have purchased a bag before, and the whole shopping process is still relatively smooth. —CN21 I purchased a simulated cowhide bag, and the buying experience was very good. You don't have to put in extra hours of effort to take care of it during use. —CN23

Table 3. (Continued).

TPB	Theme	Quotations
Perceived behavioral control	Experience	I purchased a vintage item, and my experience was quite comfortable. —CN25
		I have a bag that is made of a sustainable material, it is not only waterproof, it can also be stuffed with a little bit of anything, it works very well. —CN28

Source. Data adapted from authors (2024).

As shown in **Table 2** and **Table 3**, a total of 35 themes are presented in this study, with 18 themes for participants aged 18–25 and 17 themes for participants aged 26–39. The specific results are shown in **Figure 4**.

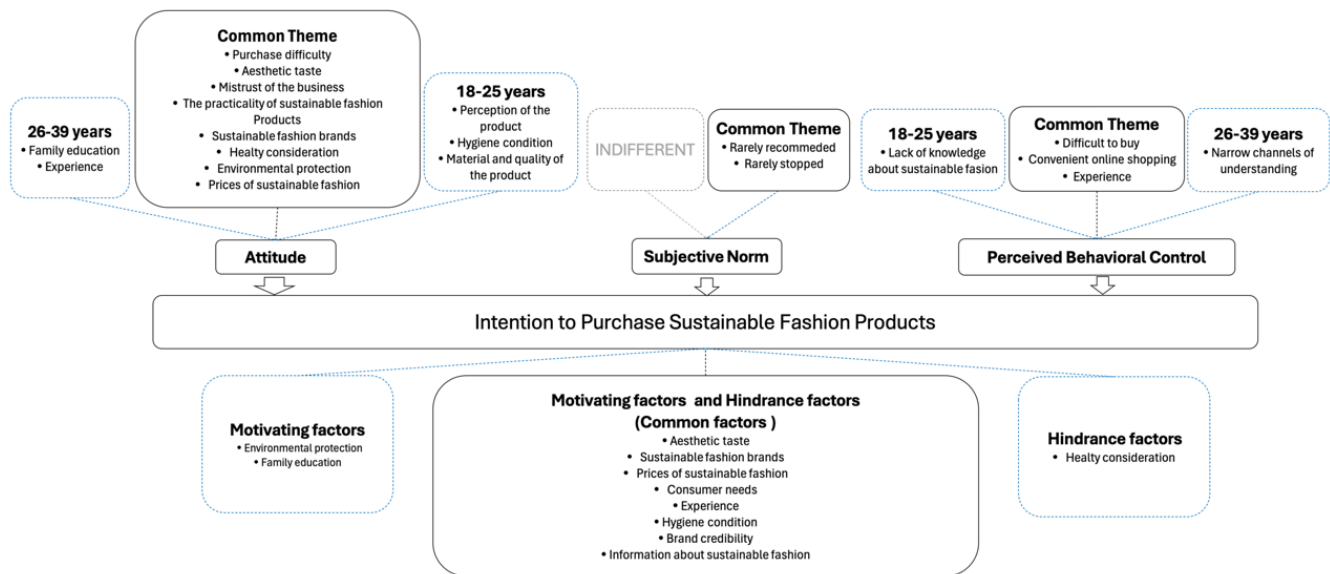


Figure 4. Research results based on theory of planned behavior.

4.1. Attitudes

Through the interviews, the research found that young female consumers in China generally hold a positive, supportive, and recognized attitude toward sustainable fashion. The research found that consumer perceptions of sustainable fashion products affect the attitudes of consumers in both age groups toward sustainable fashion products. Perceptions of sustainable fashion products include consumers’ perceptions of purchasing channels for sustainable fashion products, consumers’ aesthetic perceptions of sustainable fashion products, consumers’ perceptions of the practicality of sustainable fashion products, consumers’ perceptions of sustainable fashion brands, consumers’ perceptions of the price of sustainable fashion products, and consumers’ perceptions of the environmental benefits of sustainable fashion products. After comparing the two age groups, the study found that consumers between the ages of 18 and 25 said that they would learn all kinds of information about sustainable fashion products before buying them, and they would consider the hygiene status of sustainable fashion products and the materials of the products. Consumers in the 26–39 age group said they would consider the experience of sustainable fashion products, and the 26–39 age group

also said that the family education they received from a young age has shaped their current sustainable consumption concepts and behaviors.

4.2. Subjective norms

The study found that consumers in two different age groups are less under social pressure, and their friends, family, and colleagues will not interfere too much in their purchasing decisions. More often, they are the ones giving opinions to other consumers about sustainable fashion products.

4.3. PBC

Regarding PBC, participants from both age groups expressed that online shopping in China is highly developed, the system is flawless, and the sustainable fashion products they have purchased have provided them with a positive experience. However, purchasing sustainable fashion products remains challenging, primarily due to a lack of knowledge about these products and limited channel resources. The channels for purchasing sustainable fashion products are not straightforward to find, and the selection of sustainable fashion products is small. Many participants expressed their intention to purchase sustainable fashion products, but they did not know much about the channels to do so. When comparing the participants from the two age groups, the study found that, despite purchasing sustainable fashion products, the participants aged 18–25 still think they lack awareness of sustainable fashion. Participants aged between 26 and 39 think that they are relatively well informed about sustainable fashion, but the channels for understanding sustainable fashion are not simple to find.

4.4. Intention

When the researcher asked the participants about the intention aspect, it was a high degree of overlap with the contents in the attitude, subjective norm, and PPC sections. Based on this, the researcher concluded that there are primarily 11 factors that influence the participants' purchase intention towards sustainable fashion, as follows:

The motivating and hindrance factors that simultaneously influence the purchasing intention of Chinese young female consumers towards sustainable fashion are as follows:

1) Aesthetic taste

The study discovered a positive relationship between participants' aesthetic taste and their intention to consume sustainable fashion products. Sustainable fashion products that match consumers' aesthetic tastes will increase consumers' intentions to purchase sustainable fashion products.

2) Consumer needs

There is a positive correlation between participants' consumption needs and purchase intention. The more sustainable fashion products meet consumers' needs and can add more practical value to them, Consumers are more inclined to purchase sustainable fashion products.

3) Sustainable brands

Brand reputation, brand image, brand culture, brand product features, the brand's impression in the process of publicity, and brand after-sales service all have a positive impact on participants' purchase intentions.

The brand's favorable reputation and image, as well as its rich cultural heritage, will attract more loyal consumers to follow it.

The product features of brand products are reflected in many aspects, such as the traditional culture mentioned by CN13.

"I would focus more on brands in this category that combine sustainability with traditional culture." —CN13

Sustainable fashion brands combine with traditional Chinese culture to launch sustainable fashion products with traditional Chinese culture, which is a form of brand product characteristics.

The strict control of a brand over each link of its own production, sales and after-sales service will increase consumers' favorability to it, thus increasing their purchase intention.

4) Prices of sustainable fashion

The price of sustainable fashion products positively correlates with the participants' purchases intention. They tend to select sustainable fashion products that are both cost-effective and within their budget. The unreasonable premium on these products is the primary factor impeding their purchase intention.

5) Experience

Experience has a positive impact on the sustainable fashion purchase intention of the participants. Experience can be divided into the experiences of consumers before and after the purchase of sustainable fashion products. The consumer's pre-purchase experience refers to the consumer's trial experience with a sustainable fashion product prior to purchasing it. The post-purchase experience includes the consumer's experience of consuming the sustainable fashion product, the experience of using it, and the experience of the after-sales service provided by the sustainable fashion brand to the consumer. The post-purchase experience is one of the components of a consumer's cognitive experience with a sustainable fashion product, and the post-purchase experience influences a consumer's intention to purchase a sustainable fashion product again in the future.

6) Hygiene condition

When buying fashion products that have been recycled and resold, participants said they would pay special attention to the hygiene of the products during the recycling process and at the time of sale. The good hygiene will affect consumers' purchase intention for sustainable fashion products.

7) Brand credibility

The credibility of sustainable fashion brands in the minds of consumers will affect consumers' purchase intentions for sustainable fashion products, and higher brand credibility will motivate consumers' purchase intentions. Lower brand credibility reduces or even hinders consumer purchase intentions for sustainable fashion products. If a sustainable fashion brand has false publicity and greenwashing behaviors, it will affect consumers' credibility of the brand, thus reducing consumers' purchase intentions of sustainable fashion products.

8) Information about sustainable fashion

The extent to which consumers are aware of information related to sustainable fashion affects their purchase intention for sustainable fashion products. Sustainable fashion-related information is specifically reflected in sustainable fashion-related knowledge, channels for purchasing sustainable fashion, information on sustainable fashion products and perception of sustainable fashion resources. The deeper consumers understand sustainable fashion, the more they will be motivated to purchase sustainable fashion.

The factors that motivate young female Chinese consumers to purchase intentions for sustainable fashion are as follows:

1) Environmental protection

Awareness of environmental protection will motivate consumers to purchase sustainable fashion products. The clearer the consumer's perception of the current state of environmental pollution and the fashion industry's perception of environmental pollution, the stronger the consumer's awareness of purchasing sustainable fashion.

2) Family education

The participants indicated that their concept of sustainable fashion consumption was influenced by family education, and the behavior and habits of family members affected the participants' concept of environmental protection and consumption intention of sustainable environmental protection.

The factors that hinder the purchasing intention of young female Chinese consumers towards sustainable fashion are as follows:

- Healthy consideration

Participants pay attention to the impact of sustainable fashion products on their own health, and if there is a risk that sustainable fashion products will harm participants' health, it will reduce or even hinder participants' intentions to buy sustainable fashion products. Therefore, consumers will pay special attention to the raw materials, production process, and actual use of sustainable fashion products to see if they contain hazardous substances and whether they will affect their own health before purchasing.

5. Discussion

Much of China's sustainable focus has been on the development of new energy sources and the sustainable development of industry and agriculture-related sectors. There is not a lot of publicity and attention to sustainable fashion in China. With the trend of globalization and the global village, the e-commerce and online shopping industries are rapidly developing rapidly. China is not only the world's largest cloth producer, but it also supplies products to other countries. Environmentally friendly and good-quality products can also build a good brand for Chinese marketing and strengthen the government's image to achieve the win-win strategy and SDG goals. Therefore, it is crucial to explore the attitudes of young Chinese female consumers towards the purchase intention of sustainable fashion and the motivating and hindering factors that affect the purchase intention for the development of sustainable fashion in China and the development of sustainable fashion of China in the world.

This study is the first qualitative study on the purchasing intentions of sustainable fashion among young female consumers of different age groups in China through TPB theory. All in all, this study provides a unique vision to study the consumption intention of young Chinese female consumers for sustainable fashion products, while at the same time, a more finely differentiated study of sustainable fashion consumers in China is conducted.

The study found that young Chinese female consumers are generally positive, supportive, and agreeable to sustainable fashion. This result is consistent with previous studies (Rausch and Kopplin, 2021). Secondly, Chinese young female consumers are subject to less social pressure when engaging in sustainable fashion activities. This also proves that Chinese society has a high degree of tolerance, recognition and acceptance of 'sustainability'. However, young Chinese female consumers have a low degree of PBC for sustainable fashion, mainly because young Chinese female consumers lack understanding of sustainable fashion, which is also the main reason that hinders Chinese consumers from purchasing intention of sustainable fashion. This finding that aligns with earlier research (Brandão and Costa, 2021; Hojnik et al., 2020; Mukendi et al., 2020; Sharma, 2021).

The last is about the factors that influence young Chinese female consumers' intentions to buy sustainable fashion.

- 1) Aesthetic taste, consumer needs, sustainable brands, prices of sustainable fashion, brand credibility, information about sustainable fashion, and environmental protection are consistent with the point made by Ajzen, Brandão, Sharma, Theresa, and Jung (Ajzen et al., 2018; Brandão and Costa, 2021; Jung et al., 2020; Rausch and Kopplin, 2021; Sharma, 2021). Therefore, the brand should not only reject false propaganda, greenwashing, and other behaviors, but also clearly display information about sustainable fashion products, emphasize their role in environmental protection, set a reasonable price and product appearance to meet consumers' aesthetic needs, values and budget, and continue to innovate and develop the functionality of sustainable fashion products to enhance their utility and meet consumer needs.
- 2) Hygiene conditions and health considerations are consistent with Susana's study (Silva et al., 2021). When purchasing sustainable fashion products, consumers will consider the hygienic conditions of the products themselves as well as the impact on their health. Therefore, sustainable fashion brands should provide detailed product information and a specific production process when selling sustainable fashion products, which can reduce consumers' concerns about product hygiene and their own health when buying sustainable fashion products and increase consumers' purchase intention.
- 3) Experience is consistent with the studies of Samantha, Li and Ajzen (Ajzen et al., 2018; Li and Liu, 2021; Lynch and Barnes, 2020). Sustainable fashion brands should increase the value of the consumer experience before and after the purchase of sustainable fashion products, thus increasing the consumer's intention to purchase sustainable fashion products.
- 4) About the impact of family education on the purchase intention of sustainable fashion. Based on the research results, family education here can be explained

familial atmosphere within a family, the personal habits of parents or other family members,, and the guidance provided by the elders to the younger generation, all of which have an imperceptible influence on the purchase intentions and behavior of consumers. Ajzen pointed out that education, as a background factor, would affect individuals' intentions and behavior by influencing their attitudes, subjective norms and PBC (Ajzen et al., 2018). However, no existing studies explicitly mention or analyze the effect of family education on the purchase intention of sustainable fashion. China is a country where collectivism is prevalent (Wei and Jung, 2017), and in such a social context, "family education" has a certain role in guiding consumers' intention to buy sustainable fashion products and their purchasing behavior, but the specific impact needs to be investigated.

Based on the above discussion, this study argues that the Chinese government should intensify efforts to guide and publicize consumers' sustainable fashion consumption. Secondly, sustainable fashion enterprises and brands should clarify the information about their sustainable fashion products, increase the promotion of sustainable fashion, continue to innovate sustainable fashion products, enhance the value of consumers' experiences with sustainable fashion products, and provide convenient conditions for consumers to understand and purchase sustainable fashion. Promote the development of sustainable fashion in Chinese society and then promote the sustainable development of the whole Chinese society.

6. Implications, limitations, and future research directions

6.1. Theoretical and practical implications

This research mainly involves young female consumers in two different age groups in China. By conducting interviews with young female consumers across two distinct age groups, the research findings have the potential to impact four key stakeholders: the Chinese government, enterprises, Chinese consumers, and society. The Chinese government can learn about consumers' attitudes, expectations, and consumption intentions toward sustainable fashion. This research suggests that the Chinese government should enhance the promotion of sustainable fashion, accelerate the upgrading of the fashion industry, and guide consumers toward sustainable fashion consumption. Simultaneously, the government should offer policy, capital, and tax support to the relevant sustainable fashion enterprises, thereby fostering the growth of sustainable fashion and alleviating the burden of enterprise development. This can help reduce some production costs, thereby lowering the price of sustainable fashion products. To maintain a good consumer market environment, the government should strengthen market supervision and severely crack down on greenwashing, high prices, and dishonest merchants.

Secondly, this research enables enterprises to understand consumer demand for sustainable fashion better. Enterprises should strengthen the development and innovation of sustainable fashion products. Innovation includes innovation in the production technology of sustainable fashion products and innovation in the design of sustainable fashion products. Secondly, enterprises and brands should also provide clear information about sustainable fashion products, including their materials, usage,

durability, environmental impact, and the outcomes of their recycling and processing. Finally, enterprises and brands should strengthen the publicity of sustainable fashion. It is crucial to simplify the process for consumers to learn about sustainable fashion and to purchase sustainable fashion products.

Thirdly, consumers can learn more about sustainable fashion through this research. This research offers valuable insights for consumers when purchasing sustainable fashion products. Customers should actively engage in sustainable fashion consumption, understand the negative impact of fashion pollution on the environment, and recognize the importance of adhering to sustainable fashion practices.

Finally, a benign and sustainable harmonious society can only be created if the government takes the lead and raises public awareness, enterprises focus on innovation, and consumers adhere to sustainable consumption.

In addition to the above practical implications, this study further summarizes the factors influencing consumers' intention to purchase sustainable fashion through a qualitative research approach and semi-structured interviews and compares them with the factors influencing consumers' intention to purchase sustainable fashion in existing studies. At the same time, this study combines the basic situation of Chinese society, carefully explores the motivating and hindering factors that influence young Chinese female consumers' intention to purchase sustainable fashion products and puts forward relevant suggestions and improvement measures. This study cannot only once again prove that the TPB model is suitable for investigation and research in the context of Chinese society, but also enrich the existing research content on sustainable fashion and TPB theory and further refine the factors affecting individual intention in TPB theory.

6.2. Limitations and suggestions for future research

The biggest limitation of this study is that there are 34 provincial administrative regions in China. However, the participants were only from 15 of these provinces. Therefore, it is recommended that the perception of sustainable fashion in China be investigated as a direction for future research.

Secondly, due to the differences in perception and behavioral intention of consumers of different genders in consumption, the replicability of the research results of this study may only exist among female consumers. The study proposes that in the future, male consumers should lead the investigation into their sustainable fashion purchase intentions and the factors influencing these intentions.

Thirdly, this study used an online telephone call as the data collection tool, which may have limited the ability to explore the data in depth by, for example, ignoring information on participants' facial expressions and non-verbal communication.

Finally, the researchers themselves translated all questionnaires in this study from English into Chinese before data collection. The researchers then translated the collected data from Chinese into English. Different cultural backgrounds and values, along with language usage habits, can lead to subjective understanding biases in the researchers' interpretation of the questions. The researchers' personal bias may also

affect the interpretation of the data. However, this does not affect the availability of this study's research data.

7. Conclusions

This research explores the purchase intentions of Chinese young female consumers of different age groups towards sustainable fashion products and their attitudes towards sustainable fashion using the TPB theory. The study also examines the motivating and hindering factors that influence Chinese young female consumers of different age groups' purchase intentions towards sustainable fashion. It can be learned from the research that young Chinese female consumers generally hold a positive and supportive attitude toward sustainable fashion. However, due to the lack of information dissemination about sustainable fashion, consumers have certain obstacles to implementing sustainable fashion consumption behaviors. All in all, the results of this study will be beneficial as a reference when the Chinese government makes sustainable policies to guide consumers toward sustainable fashion consumption. This study also can help enterprises select target markets in China and formulate sustainable fashion marketing strategies and targeted advertising. This study contributes to increasing consumer awareness of sustainable fashion, as well as providing reference and reflective value when consumers purchase sustainable fashion products. Finally, this study will help promote sustainable fashion development in Chinese society and make a modest contribution to reducing social resource waste, recycling resources, and improving social conditions.

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Appendix

1. Screening questions

1.1. Respondent demographics

From:

- Please put (Province)

Age (years)

- 18–25
- 26–39

Education level

- Middle school or lower
- High school
- Bachelor's degree
- Master's degree
- Postgraduate courses or PhD

Income (CNY)

- 0–1500 CNY
- 1501–3600 CNY
- 3601–4800 CNY
- 4801–7000 CNY
- 7001–10000 CNY
- 10001–17000 CNY
- 17001–32000 CNY
- 32000 or upper 32000 CNY

Occupation

- Student
- Public sector employee
- Private sector employee
- Business owner
- Others (Please specify)

Frequency of purchasing fashion product per month (Fashion made from recycled materials.)

- 0 (I don't purchase any)
- 1 item per month
- 2 items per month
- 3 items per month
- 4 items per month
- 5 items or more per month

1.2. Pre-screen question

- I am aware of the environmental impact caused from cultivation of raw materials of garments (e.g., cotton).
- I know about the environmental impact caused from synthesis, dyeing and processing of a material for production of a garment.
- I am aware of the environmental impact from disposal of garment wastes and their scale.

Note: Questions in 1.2 follow 9 Likert-scale:

- Strongly Agree (9)
- Agree (8)
- Moderately Agree (7)
- Mildly Agree (6)
- Neither Agree nor Disagree (5)
- Mildly Disagree (4)
- Moderately Disagree (3)
- Disagree (2)
- Strongly Disagree (1)

2. Formal interview question

2.1. Attitude question

- Can you describe your feelings and thoughts when you consider buying sustainable fashion products or making eco-friendly fashion choices?
- What are the motivations that make you buy sustainable fashion?
- Can you describe your feelings and thoughts when you consider NOT buying sustainable fashion products or making eco-friendly fashion choices?
- Are there any obstacles that prevent you from buying sustainable fashion?

2.2. Subjective norm

- Are there any specific fashion products that your family, friends, or co-workers recommend to you because the products can reduce environmental factors?
- Do your family, friends, or co-workers try to stop you from buying sustainable fashion products or making eco-friendly fashion choices? How? (Please explain)

2.3. Perceived behavioral control

- Do you think you understand sustainable fashion?
- Do you think it is easy or difficult for you to buy sustainable fashion products or make eco-friendly fashion choices? How? (Please explain)
- Do you have any experience buying sustainable fashion products? How would you evaluate the experience?

2.4. Intention

- What factors influence the decision you have to make between an eco-friendly product and a non-eco-friendly alternative?
- Can you explain why you are hesitant or unwilling to buy eco-friendly fashion products?