THE APPLICATION OF THE THEORY OF PLANNED BEHAVIOR TO PASSENGERS' BEHAVIORAL INTENTIONS OF IN-FLIGHT MEAL - A CASE STUDY OF SPRING AIRLINES

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AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION
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This Independent Study Has Been Approved as a Partial Fulfillment of the Requirements for the Degree of Master of Business Administration

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ABSTRACT

Based on globalization and the rapid development of the service industry, individual airlines have followed the trend of continuous progress. Spring Airlines, as part of the low-cost carriers (LCC), is expanding its business scope, and the number of passengers has also increased substantially. With the increase in environmental awareness and the spread of green consumption concepts, the purchasing behavior of in-flight meals has gradually come under scrutiny.

Taking Spring Airlines as a case study, this study aimed to explore the influencing factors of in-flight meal behavioral intentions of passengers' based on the theory of planned behavior and constructed a research model containing the variables of behavioral attitudes, subjective norms, perceived behavioral control, and behavioral intention. Quantitative research methods were used to deeply analyze the influence of each factor on customers' behavioral intention through questionnaire data collection and statistical analysis methods.

The study's results showed that behavioral attitudes, subjective norms, and perceived behavioral control all had a significant positive effect on passengers' behavioral intentions. This study suggested several strategies to optimize in-flight meal services for Spring Airlines. Recommendations include by deepening insights into passenger demand, reinforcing the positive brand image by integrating the concept of environmental protection, and optimizing marketing tools, Spring Airlines, and similar airlines could comprehensively improve the quality of their in-flight meal services to meet the diverse needs of passengers, enhance satisfaction and loyalty, and at the same time promote the sustainable development of the airline industry.

Keywords: Spring Airlines, in-flight meals, Theory of Planned Behavior, behavioral intentions.

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Huang Gehan

DECLARATION

I, Gehan Huang, hereby declare that this Independent Study entitled *"The Application of the Theory of Planned Behavior to Passergers' Behavioral Intentions In-flight Meal - A Case Study of Spring Airlines"* is an original work and has never been submitted to any academic institution for a degree.

Huang Gehan

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Chapter 1 Introduction

1.1 Background of the Study

In the era of globalization, marked by unprecedented advancements in the service industry, the air transport sector faces intense competition. Airlines continuously strive to differentiate themselves and enhance the travel experience for their passengers. Among the various service offerings, the in-flight meal service is a critical factor in shaping passenger satisfaction and, consequently, the airline's brand image. With consumers becoming increasingly conscious about environmental protection and health, their choices and preferences regarding in-flight meals are influenced by a multitude of factors. Understanding these factors is crucial for airlines to effectively tailor their meal service strategies.

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991) offers a robust framework for predicting and understanding individual behaviors. According to TPB, behavioral intentions are jointly determined by three primary components: behavioral attitudes, subjective norms, and perceived behavioral control. Behavioral attitudes refer to an individual's positive or negative evaluations of performing a particular behavior. Subjective norms encompass the perceived social pressure to engage in or refrain from a behavior, based on the expectations of others. Lastly, perceived behavioral control reflects an individual's assessment of their ability to perform the behavior, considering factors such as resources, skills, and obstacles (Tony et al., 2012). By applying TPB to the context of in-flight meal choices, airlines can gain insights into the underlying motivations and influences shaping passenger decisions.

Despite extensive research on airline services, which has covered legal issues, service scope, compensation mechanisms, and implementation effects (Aisling. R. F., 1995; Tony et al., 2012; Isabel. S., 2005), there is a notable lack of studies exploring how in-flight meal choices impact passenger behavioral intentions. This gap in research is particularly evident in the realm of low-cost carriers, a growing segment within the aviation industry. Taking Spring Airlines as a case in point, this study aims to fill this void by examining the factors influencing passengers' purchase intentions of in-flight meals based on TPB.

Spring Airlines stands as China's pioneering privately owned low-cost carrier, setting a precedent in the aviation industry. The concept of a low-cost carrier revolves around managing costs efficiently while delivering fundamental services and

leveraging ancillary marketing strategies to cater to passengers seeking affordable short-haul travel options (Li, 2021). Launched in Shanghai in 2005, Spring Airlines has swiftly expanded its network, encompassing both domestic and international routes, boasting a substantial fleet and continuously broadening its international reach. Tailored for cost-conscious low- and middle-income travelers, Spring Airlines focuses on short-haul flights. The airline enhances profitability through auxiliary marketing initiatives, such as selling in-flight meals and offering seat upgrades. It operates with agility, promptly adapting to customer demands through diversified and personalized marketing strategies. These approaches not only draw in passengers but also augment sales. By simplifying in-flight services, Spring Airlines has garnered significant acclaim from both industry peers and consumers, establishing itself as a highly recognized brand (Li, 2021).

This research endeavor aims to provide Spring Airlines and other similar airlines with a comprehensive, scientific framework to optimize their meal service strategies. By doing so, it seeks to elevate passenger satisfaction, further cementing the position of low-cost carriers in the competitive aviation landscape. Through meticulous analysis and insights, this study aims to contribute to the ongoing evolution of air travel, ensuring that airlines like Spring Airlines continue to meet and exceed the expectations of their travelers.

1.2 Questions of the Study

The main objective of this study is to propose tailored strategies for Spring Airlines and similar airlines to improve their in-flight meal services. This study should not only improve passenger satisfaction, but also ensure that these improvements are in line with environmental and sustainability requirements. This study is dedicated to promoting the optimization of airline in-flight meal services and providing recommendations for airlines in the complex interplay between service quality, and customer satisfaction. There are three main research questions in this study:

(1) What is the impact of Spring Airlines passengers' behavioral attitudes on their behavioral intention of in-flight meals?

(2) What is the impact of Spring Airlines passengers' subjective norms on their behavioral intention of in-flight meals?

(3) What is the impact of Spring Airlines passengers' perceived behavioral control have on their behavioral intention of in-flight meals?

1.3 Objectives of the Study

There are three primary research objectives of this study, which are outlined as follows:

1. To explore how passengers' behavioral attitudes affect their behavioral intention of in-flight meals of Spring Airlines.

2. To explore how Spring Airlines passengers' subjective norms affect their behavioral intention of in-flight meals of Spring Airlines.

3. To explore how passengers' perceived behavioral control affects their behavioral intention of in-flight meals of Spring Airlines.

1.4 Scope of the Study

Based on the Theory of Planned Behavior, this study delved into the multifaceted factors influencing passengers' behavioral intentions of in-flight meals, employing online questionnaires and leveraging statistical analysis software such as SPSS. Utilizing Spring Airlines as a paradigmatic case, the scope of this investigation specifically encompasses the following aspects:

1. Study Population: The main target population of this study was the passengers of Spring Airlines, especially those who showed different behavioral intentions when choosing in-flight meals. To ensure the robustness and representativeness of the findings, passengers of different age groups, genders, income levels, and social backgrounds were included in this study. This diverse sample provided a comprehensive understanding of the different influences on passenger choice.

2. Key Variables: This study focused on the influence of behavioral attitudes, subjective norms, and perceived behavioral control on Spring Airlines passengers' in-flight meal intentions. In the research analysis, behavioral attitudes, subjective norms, and perceived behavioral control were used as independent variables, aiming to reveal their correlation with passengers' behavioral intentions. By examining these key variables, insights into the factors that influence passenger decision-making are gained.

3. Data Processing: In this study, questionnaires were distributed and collected through social media platforms and other channels. The collected data was analyzed in depth using statistical analysis software such as SPSS. This meticulous process revealed the relationships between key variables and their impact on passenger behavioral intentions, providing suggestions for Spring Airlines passengers' intentions for in-flight meal selection.

1.5 Significance of the Study

Although airline services have attracted significant attention from scholars across academic disciplines and have been studied from several perspectives, the specific area of in-flight catering remains relatively under-researched in terms of depth and breadth of research. Considering the key role of in-flight dining in shaping passenger experience and satisfaction, this study aims to explore the influencing factors of Spring Airlines passengers' in-flight meal behavioral intentions and to provide guiding significance to Spring Airlines' optimization of in-flight dining strategies and improvement of passenger satisfaction.

Based on the Theory of Planned Behavior, this study explores how passengers' attitudes, subjective norms, and perceived behavioral control affect their intentions toward Spring Airlines' in-flight meals. By understanding these factors, Spring Airlines can gain a deeper understanding of passengers' preferences and motivations, and thus customize its in-flight meal strategy more effectively. This, in turn, will increase passenger satisfaction and loyalty, ultimately increasing the airline's revenue.

In addition to the practical implications for Spring Airlines, this study contributes to the theoretical development of the airline service industry. Based on the TPB theory, this study explores the factors that influence consumer decision-making, enriching and improving the air service industry. In addition, this study has a wider impact on the air tourism industry. By improving the service quality of in-flight meals, airlines can enhance the overall travel experience of passengers and make air travel more attractive to leisure and business travelers. This, in turn, can contribute to the growth and sustainability of the air tourism industry, contributing to economic development and job creation in the aviation sector.

In conclusion, this study of the factors influencing Spring Airlines passengers' in-flight dining behavioral intentions is important for the airline itself and the wider air service and air tourism industries. By providing theoretical guidance and practical insights, this study contributes to the continuous development and improvement of airlines' service strategies, ultimately resulting in a more passenger-centered and competitive airline industry landscape.

1.6 Definition of Key Terms

This study aims to investigate the key factors influencing Spring Airlines passengers' behavioral intention to use in-flight meals on flights by applying the Theory of Planned Behavior theory. The following key terms are given, and concepts are defined in this study.

1. Behavior Attitude: In this study, behavior attitudinal refers to Spring Airlines passengers' attitudes toward in-flight meal, which relates to passengers' evaluations of the meals they consume during the flight, including considerations of the quality, variety, and price of the in-flight meals provided. Past research by scholars has shown that attitude is an important predictor of behavioral intention, and more favorable attitudes usually lead to stronger behavioral intentions (Yang, 2022).

2. Subjective Norms: In this study, subjective norms refer to the effect of subjective norms on Spring Airlines' passengers' in-flight dining behavior, which may be related to the effect of social expectations.

3. Perceived Behavioral Control: In this study, perceived behavioral control relates to Spring Airlines passengers' beliefs in their ability to choose and consume in-flight meals based on the factors of availability, personal preferences, and dietary restrictions. High levels of perceived behavioral control may lead to stronger behavioral intentions because individuals are more confident in their abilities.

4. Behavioral Intention: Behavioral intention, the focus of TPB, represents an individual's intention to engage in a particular behavior. In this study, behavioral intention refers to a passenger's intention or tendency to eat on a flight.

Chapter 2 Literature Review

2.1 Introduction

The airline industry has made great strides in recent years, and air travel has become increasingly convenient and popular among different groups of people. Spring Airlines, a leading low-cost carrier, has gained significant market share by offering affordable flights, but its in-flight meal service is often a topic of debate among passengers. Using the Theory of Planned Behavior, this study explores the factors that influence Spring Airlines passengers' behavioral intentions to dine in-flight, and it is critical to understand the interconnections between its core components: attitudinal behaviors, subjective norms, perceived behavioral control, and behavioral intentions.

This literature review delves into the existing research on each of these components, exploring how they have been applied in various contexts and how they can be used to enhance the understanding of in-flight meal behavioral intentions among Spring Airlines passengers. By synthesizing this knowledge, this study aims to provide insights that can guide airlines in enhancing their in-flight meal services, ultimately contributing to improved passenger satisfaction and loyalty.

2.2 Theory of Planned Behavior

The Theory of Planned Behavior was developed based on the Theory of Rational Behavior (TRA). TPB states that a person's behavioral performance is determined by behavioral intentions, which are predicted by three factors: a person's attitude behavior, subjective norms, and perceived behavioral control (Ajzen, 1985; Pavlou & Fygenson, 2006). Behavioral attitudes reflect an individual's evaluation of performing a particular behavior, ranging from favorable to unfavorable. Subjective norms refer to social pressures to engage or not engage in behavior based on the expectations of significant others or reference groups. Perceived behavioral control reflects an individual's perception of his or her ability to perform a behavior, taking into account factors such as skills, resources, and opportunities. Ajzen (1991) revised and improved the TRA by recognizing the difficulty for individuals to reach full rationality. Based on the TRA model, he added perceived behavioral control as the third independent variable. Perceived behavioral control consists of perceptual power and control beliefs, and if a person holds strong control beliefs and strong perceptual power, then that person will be able to promote the emergence of behavior. Ajzen (1991) named the revised model the Theory of Planned Behavior.

Godin and Kok (1996) reviewed the application of the TPB to health-related behaviors, noting that the theory excelled in explaining intentions. TPB has been successful in explaining individuals' acceptance and use of various information technologies (Harrison et al., 1997; Mathieson, 1991). Harrison et. al. (1997) found strong support for decision-making processes based on attitudes, subjective norms, and perceived control in the adoption of information technology. On the other hand, TPB is the theoretical framework for this study and provides a structured approach for investigating and predicting behavioral intentions. TPB theory suggests that behavioral intentions are the direct antecedents of behavior and are influenced by three main antecedents: attitudes toward behavior, subjective norms, and perceived behavioral control. The TPB components are not isolated but interact dynamically and synergistically. Behavioral attitude, subjective norms, and perceived behavioral control each contribute uniquely to shaping behavioral intention, and their combined influence is often more powerful than any single component alone(Rahman, 2021). For example, a favorable attitude toward in-flight meals may be reinforced by positive subjective norms, seeing other passengers enjoy meals. High perceived behavioral control, and easy access to meal options that cater to personal preferences, this reinforcement can lead to stronger behavioral intentions and, ultimately, increased engagement in the behavior. This study examines the factors influencing Spring Airlines passengers' Behavioral intentions regarding in-flight meals based on the TPB framework.

2.3 Behavioral Attitudes

In both the Theory of Planned Behaviour and the Technology Acceptance Theory it is considered that behavioral attitudes affect the intention to use, and thus the occurrence of the behavior, and are a very important factor (Huang, 2018). Attitudes are generated by a set of thoughts that lead to assigning a value to the outcome of the behavior. If the outcome or consequence of the behavior is evaluated as positive, useful, beneficial, desirable, favorable, or good, then one's attitude will be positive, and the individual will be more likely to engage in the behavior (Khayyam, 2022). Behavioral attitude is the assessment of the degree of positive or negative, liking or disliking, approval or disapproval that an individual expresses about whether or not to take up a behavior, i.e. whether the individual himself wants to or doesn't want to (Yang, 2022).

Research by Engel et. al. (1995) suggests that behavioral attitudes are mainly influenced by both cognitive and affective aspects, and behavioral attitudes in the context of the present study from the aspect of affective cognition, refers to a measure of the overall evaluation of meals on flights by Spring Airlines passengers. It

summarizes passengers' perceptions and feelings about the quality, variety, price, and overall experience of in-flight meals. Good attitudes towards in-flight meals may enhance passengers' behavioral intentions because they perceive the behavior as beneficial and enjoyable.

Behavioral attitudes refer to the overall evaluation of a behavior by an individual, encompassing both emotional responses (affective attitudes) and practical considerations (instrumental attitudes). According to Fishbein and Ajzen (2010), behavioral attitudes influence an individual's intention to perform a behavior, as people tend to form attitudes based on the expected outcomes of that behavior. If they believe a behavior will result in positive outcomes, they are more likely to engage in it.

For example, students may have a positive attitude toward studying abroad because they believe it will improve their career prospects (instrumental attitude) and that the experience will be enjoyable (affective attitude). This positive evaluation encourages them to take the behavior of studying abroad. When individuals consider exercising regularly, they may feel positively about the activity because it leads to improved physical health (instrumental attitude) and they enjoy the endorphin rush after a workout (affective attitude). These evaluations significantly influence their intention to exercise and, ultimately, their likelihood of engaging in the behavior.

2.4 Subjective Norms

Ajzen's (1991) definition of subjective norms in the Theory of Planned Behaviour is the amount of social pressure felt by an individual to engage in a certain behavior, which is due to other people or groups of people who are perceived to be close to or necessary for the individual, such as family, neighbors, and friends (Tonglet et al., 2004; Wan et al., 2014). Therefore, subjective norms were defined in the current study as what important references want us to do. These important references are usually family members, friends, classmates, spiritual leaders, healthcare providers, or others that we highly value (Muhammad, 2022). Research has concluded that subjective norms are mainly influenced by both personal and social norms (Huang, 2018), and subjective norms in this study were measured from the passengers' perception of external factors such as family, friends, and social media as influences on the intention of Spring Airlines in-flight meals. If passengers perceive the consumption of meals during the flight as a strong social expectation, they are more likely to develop intentions to consume meals because they want to comply with these norms and avoid social disapproval.

Subjective Norms refer to an individual's perception of social pressures to perform or not perform a particular behavior. This construct reflects two main aspects: normative beliefs and motivation to comply. Normative beliefs are perceptions about whether important others (family, friends, colleagues, society) approve or disapprove of a behavior, while motivation to comply is the degree to which the individual is willing to follow these perceived social expectations (Ajzen, 1991).

For instance, if a person believes that their close friends value sustainability and regularly participate in environmental activities, they may feel socially pressured to engage in similar behaviors, like recycling or reducing waste. Thus, subjective norms strongly influence behavior, as individuals often wish to align their actions with social expectations or norms.

Moreover, subjective norms are not only derived from direct interactions but also from cultural norms and the general social context. Individuals in societies that value environmental consciousness, for instance, might feel more compelled to adopt sustainable behaviors due to widespread societal approval and the perceived expectation to contribute positively to the environment (Cialdini et al., 1990).

2.5 Perceived Behavioral Control

Perceived behavioral control, first proposed by Ajzen (1985), refers to an individual's beliefs about his or her ability, resources, and opportunities to perform a particular behavior. Such beliefs reflect the obstacles and accommodations encountered in performing the behavior and are key predictors of the probability of the actual behavior occurring (Bandura, 1997). Kraft et. al. (2005) argued that strong perceived behavioral control provides people with confidence that they can accomplish action and that it is a positive perception of the individual's ability, time, and finances to do so. Two characteristics of perceived behavioral control that have been identified by research as being associated with behavioral performance are self-efficacy and perceived controllability (Huang, 2018). Perceived behavioral control in this study involved passengers' perceptions of their ability to select and consume in-flight meals based on factors such as accessibility, personal preferences, and dietary restrictions. High levels of perceived behavioral control are associated with stronger behavioral intentions as passengers are confident in their ability to make informed decisions and engage in behavior without significant barriers. Therefore, perceived behavioral control in this study focuses on measuring the factors of Spring Airlines passengers' beliefs about the ability needed to purchase in-flight meals.

Perceived Behavioral Control (PBC) refers to an individual's belief in their ability to perform a specific behavior, accounting for both internal and external factors that may influence their control over the action. Internal factors include individual capabilities, such as knowledge, skills, and self-confidence, while external factors involve available resources, time, and situational constraints (Ajzen, 2002). PBC can be seen as a reflection of the person's self-efficacy—their belief in their own ability to succeed in a task—and locus of control, or the belief that they can influence the outcome of events in their lives.

For example, if a person has the necessary skills and resources, and perceives that they can manage their time to engage in a behavior, they are more likely to act. On the other hand, if they believe that external factors such as a lack of time, money, or resources will prevent them from performing the behavior, their perceived behavioral control is likely to be low, reducing the likelihood of engaging in the behavior.

Perceived behavioral control is also directly linked to actual control over the behavior, as higher perceived control generally increases the chances of success. If someone believes they can successfully make healthy food choices because they have easy access to nutritious options and sufficient cooking knowledge, they are more likely to adopt healthier eating habits.

2.6 Behavioral Intention

Behavioral Intention is a central concept in the Theory of Planned Behavior (TPB), which posits that human behavior is primarily driven by individual intentions. It refers to the likelihood or willingness of an individual to engage in a specific behavior and serves as one of the most significant predictors of actual behavior (Ajzen, 1991). According to the theory, behavioral intention is influenced by three primary factors: behavioral attitudes, subjective norms, and perceived behavioral control. Behavioral attitudes reflect an individual's positive or negative evaluation of a behavior, with more favorable attitudes leading to stronger intentions to engage in the behavior. Subjective norms refer to the perceived social pressures to perform or not perform a behavior, which can significantly influence intentions when individuals feel that important others expect them to engage in a behavior. Perceived behavioral control reflects an individual's belief in their ability to perform a behavior, factoring in both internal resources like skills and external factors like time or opportunity, and it can either facilitate or hinder the intention to act.

Ajzen (2002) emphasized that while behavioral intention is a strong predictor of behavior, the translation from intention to actual behavior is not always straightforward.

External factors such as unforeseen obstacles or lack of resources can prevent individuals from following through with their intentions. Additionally, perceived behavioral control plays a critical role in whether an intention is successfully realized into behavior, as greater control increases the likelihood of behavior execution. While behavioral intention is an important determinant, there may be a gap between intention and action, which has been critiqued in literature (Sheeran, 2002). Factors such as situational influences, emotions, and cognitive dissonance can create discrepancies between what individuals intend to do and what they actually do.

Research has shown that behavioral intention is applicable in a wide range of fields, including health behavior, environmental conservation, and consumer decision-making. For instance, individuals' intentions to adopt sustainable practices, such as recycling or conserving energy, are influenced by their attitudes, social influences, and perceived control over the behavior (Ajzen & Fishbein, 2005). However, some criticisms of the TPB suggest that it focuses too narrowly on individual intentions, overlooking the broader social, cultural, and environmental contexts that may influence behavior (Armitage & Conner, 2001). Understanding behavioral intention and the factors that shape it remains a crucial tool in predicting and influencing human behavior, particularly when external factors are taken into consideration.

Behavioral intention as the core Volitional Behavior, constitutes an indispensable part of all behavioral performance, which directly determines whether the behavior can be displayed (Ajzen, 1991). Behavioral Intention usually refers to an individual's tendency to adopt a particular behavior or use a certain form of behavior towards a thing or phenomenon and is a direct precursor to the occurrence of the actual behavior, which is the key bridge between individual perception and actual action (Fishbein & Ajzen, 1975). As far as consumer group behavior is concerned, willingness to act is generally manifested by the consumer group's willingness to buy, so scholars usually use the willingness to buy scale to measure the behavioral intention act component (Engel et al., 1995). Therefore, the behavioral intention in this study focuses on the Spring Airlines passengers' explicit behavioral intention for Spring Airlines meals or not after considering attitudes, social pressure, and self-efficacy. Behavioral intention is the ultimate focus of the TPB, representing passengers' readiness to engage in the behavior of consuming in-flight meals. It is shaped by the interplay of attitude, subjective norms, and perceived behavioral control. When these components align positively, passengers are more likely to form strong intentions to consume in-flight meals.

2.7 Conceptual Framework

TPB provides a comprehensive framework for understanding Spring Airlines passengers' behavioral intentions of in-flight meals. By examining the interconnections between behavioral attitudes, subjective norms, perceived behavioral control, and behavioral intentions, this study aims to gain insight into the factors that drive passengers' decisions to consume in-flight meals. Based on the research hypotheses, this study constructed a comprehensive theoretical model to analyze Spring Airlines passengers' behavioral intention to consume in-flight meals. The model demonstrates the extent to which each variable influences Spring Airlines passengers' behavioral intentions, as shown in Figure 2.1 below.

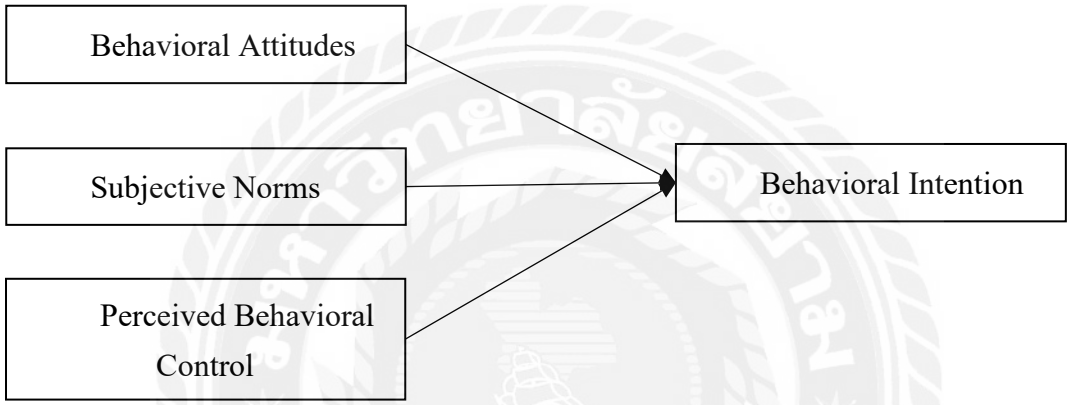

Figure 2.1 Theoretical Framework

Chapter 3 Research Methodology

3.1 Research Design

This study was designed using a quantitative research methodology that focused on exploring the relationship between behavioral attitudes, subjective norms, perceived behavioral control, and behavioral intentions. Data was mainly collected through a questionnaire as a data collection tool. The questionnaire was designed with a closed-ended question structure that provided participants with a set of predefined response options to systematically capture their perceptions of Spring Airlines' in-flight dining behavioral intentions. In addition, the questionnaire incorporated a 5-point Likert scale to enable participants to express their opinions and preferences on quantitative dimensions, further enriching the level and depth of the data.

This data collection method, which combined closed-ended questions and rating scales, not only helped to obtain a large amount of standardized data but also provided a solid foundation for analysis using rigorous statistical methods, thus ensuring the reliability and validity of the study's conclusions. Through this methodology, this study aimed to provide valuable insights into passengers' behavioral intentions to dine in flight by revealing in-depth the intrinsic links and trends among the variables of behavioral attitudes, subjective norms, perceived behavioral control.

3.2 Population and Sample

The population of this study was a unique and diverse group: passengers who had traveled on Spring Airlines flights within the past year. These passengers were selected because they had different experiences and perceptions of in-flight food and beverage services, which is the main focus of the study. The study aimed to collect a wide range of demographic data, including gender, age, education, occupation, income level, and specific experiences with Spring Airlines' in-flight catering services, to gain a comprehensive understanding of passengers' preferences and satisfaction.

To determine the appropriate sample size, to ensure a broad and representative sample, and to consider the availability of data collection, stratified random sampling was used in this study. This method allowed the target group to be stratified according to certain characteristics (e.g., age, gender, frequency of flights, etc.), and then a certain number of individuals from each stratum were randomly selected as a sample. To maximize coverage and minimize sampling bias, the questionnaire for this study also included screening questions such as when respondents flew with Spring Airlines and the cabin they usually chose. The questionnaire also included sections on behavioral

attitudes (overall evaluation of Spring Airlines' in-flight meals), subjective norms (external influences on purchasing in-flight meals), perceived behavioral control (beliefs about resources and ability to purchase in-flight meals), and behavioral intentions (willingness to purchase in-flight meals in the future). Respondents were asked to choose between “strongly disagree” (1) and “strongly agree” (5) based on their true feelings. Through this stratified random sampling method, multiple distribution channels, and a comprehensive questionnaire, this study was able to collect a diverse and representative sample of passengers, laying a solid foundation for analysis and conclusion. This study released questionnaires through social media platforms. In addition, this study also distributed offline paper questionnaires to passengers through the flight crew on some of Spring Airlines' flights.

A total of 360 questionnaires were initially collected, and after screening the questionnaires for completeness, logic, and missing values, 324 valid questionnaires were retained for analysis, yielding a response rate of approximately 90%.

3.3 Hypothesis

Based on the Theory of Planned Behavior and existing research findings in related fields, this study proposes the following three research hypotheses:

H1: Behavioral attitudes positively impact the behavioral intentions of in-flight meals of Spring Airlines passengers.

H2: Subjective norms positively impact the behavioral intentions of in-flight meals of Spring Airlines passengers.

H3: Perceived behavioral control positively impacts the behavioral intentions of in-flight meals of Spring Airlines passengers.

3.4 Research Instrument

In this study, TPB theory provides a solid structure for the research model to understand and predict individual behaviors and is therefore particularly applicable to the study of Spring Airlines passengers' intentions and attitudes toward in-flight meal consumption. The questionnaire for this study was carefully designed to measure four core variables essential to TPB theory: behavioral attitudes, subjective norms, perceived behavioral control, and behavioral intentions. Each variable is theoretically supported and can be observed and measured.

Behavioral attitudes focus on Spring Airlines passengers' evaluations of in-flight meals. This variable reflects passengers' perceptions of the quality, flavor, and price of these meals. To assess this, items are included in the questionnaire that assess

passengers' overall perceptions and beliefs about in-flight meals. For example, participants are asked “I think the quality of in-flight meals provided by Spring Airlines is very good.”, so that the researcher could quantify the positivity or negativity associated with in-flight meals in the minds of passengers.

Subjective norms reflect passengers' perceptions of social pressures on in-flight meal consumption behavior. This variable examines the influence of significant others (e.g., family, friends, and peers). Several items in the questionnaire explore passengers' perceptions of how these significant others view their in-flight food and beverage consumption. One of the illustrative items is “My family/friends recommended that I purchase Spring Airlines in-flight meals during my trip.”, which helps to determine the extent to which social pressure influences passenger behavior.

The perceived behavioral control involves passengers' beliefs about their ability to consume in-flight meals, taking into account factors such as time constraints, personal preferences, and convenience of variety. This variable is critical because it determines whether passengers believe they are capable of engaging in this behavior. Key items in the questionnaire include, “I believe that I can enjoy in-flight meals during the flight, and I think it is very convenient to purchase in-flight meals on Spring Airlines flights.”, thus providing insight into passengers' perceived control over their meal choices.

Behavioral intention measures passengers' intention to dine in-flight on Spring Airlines. This variable is critical as it directly predicts actual behavior. The questionnaire assess passengers' behavioral intentions by using items such as “I would be willing to purchase an in-flight meal on a future Spring Airlines flight.” Items such as “I think it is convenient to buy in-flight meals on AirAsia flights.” assess the likelihood of passengers consuming in-flight meals in the future, thus enabling the researcher to measure passengers' stated intentions.

Each variable is measured using specific, observable, and measurable items derived from relevant literature and theory. These items are crafted to ensure clarity, relevance, and validity, making the questionnaire a reliable tool for data collection. The questionnaire is organized into distinct sections corresponding to each key variable, with multiple items in each section scored on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This rating scale serves as the recording mode, allowing participants to select their responses appropriately. In total, the survey questionnaire comprises 9 measurement items, as shown in Table 3.1

Table 3.1 Questionnaire Structure

Variable	Measurement item	NO.
Behavioral Attitudes	1. I think the quality of in-flight meals provided by Spring Airlines is very good.	Q1
	2. I think the meals provided by Spring Airlines meet my taste preferences.	Q2
	3. I think the meals provided by Spring Airlines are good value for money and very reasonably priced.	Q3
Subjective Norms	1. My family/friends recommended that I purchase Spring Airlines in-flight meals during my trip.	Q4
	2. Reviews on social media influenced my decision to purchase Spring Airlines meals.	Q5
Perceived Behavioral Control	1. I believe that I can enjoy in-flight meals during the flight, and I think it is very convenient to purchase in-flight meals on Spring Airlines flights.	Q6
	2. I think Spring Airlines offers a wide selection of in-flight meals that meet my needs.	Q7
Behavioral Intentions	1. I am willing to purchase in-flight meals on future Spring Airlines flights.	Q8
	2. I am willing to pay extra for Spring Airlines' in-flight meals.	Q9

3.5 Reliability and Validity Analysis of the Scale

In this study, after collecting the valid questionnaires, the reliability analysis as well as the correlation analysis were conducted, and the relevant data were obtained as follows:

1. Reliability Analysis

This study used Cronbach's coefficient value to analyze the reliability of the questionnaire and to test the degree of internal consistency between the questionnaire items, and the larger the α-confidence indicates that the questionnaire is more credible. This study analyzed the reliability of the data with the help of SPSS statistical analysis software and obtained the results shown in Table 1 as follows: the reliability coefficient value is 0.977, which is greater than 0.9, indicating that the research data reliability is of high quality and can be used for further analysis. For the "Cronbach's Alpha if Item Deleted", the reliability coefficient does not increase significantly after any question

item is deleted, so it indicates that the question item should not be deleted. For the "Corrected Item-Total Correlation", the CITC values of the analyzed items are all greater than 0.4, which indicates that there is a good correlation between the analyzed items, and also indicates that the reliability level is good.

Table 3.2: Reliability Analysis

Title	Corrected Item-Total Correlation （CITC）	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Behavioral Attitudes	0.926	0.975	0.977
Subjective Norms	0.954	0.967	
Perceived Behavioral Control	0.953	0.967	
Behavioral Intention	0.937	0.972	

2. Validity analysis

Validity studies are used to analyze whether the research items are reasonable and meaningful or not, in this study the validity was verified using KMO and Bartlett's test as shown in Table 2 below. As can be seen in Table 2: The KMO value is 0.879 the KMO value is greater than 0.8, and the significance of Bartlett's Test of Sphericity Probability P-value is 0.000, which is less than 0.05, which indicates that the structural validity of the questionnaire is very good, and the research data is very suitable for extracting information.

Table 3.3: Validity Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.879
Bartlett's Test of Sphericity	Approx. Chi-Square	483.643
	df	6
	Sig.	0.000

3.6 Data Collection

The distribution of questionnaires for this study began on August 1, 2024, and data collection took place over two months, from the initial distribution of the questionnaires to the final compilation of responses. The questionnaires were distributed in both online and offline formats. Online questionnaires were used to collect responses through an online submission form, while paper copies of the offline questionnaires were collected manually.

A total of 360 questionnaires were collected for this study. This number was considered sufficient to ensure reliable statistical analysis and meaningful conclusions. However, maintaining the quality of the data was of paramount importance. Therefore, questionnaires that were incomplete, illogical, or had a large number of missing values were excluded from the final analysis. After rigorous screening, the sample of valid questionnaires was 324 with a sample validity rate of 90%. Such a high validity rate ensures the quality and reliability of the data. To summarize, in this study, 360 questionnaires were distributed through a stratified random sampling method combining online and offline channels. Through strict screening and auditing, 324 valid questionnaires were finally obtained, providing reliable data support for the study.

3.7 Data Analysis

Based on the in-depth combing of the literature review mentioned above, the support of TPB theory, and the 324 valid questionnaire data collected and screened through the stratified random sampling method, this study not only ensured the breadth of the research base and the reliability of the data but also carried out multidimensional and in-depth statistical analysis. Specifically, the study first conducted a demographic characterization to meticulously depict the distribution of participants' basic information of gender, age, income, education and channel. Then, to explore the potential associations between different demographic characteristics and the variables, the study implemented a chi-square (crosstable) to reveal the significance and strength of the relationships between the variables.

In addition, in order to quantify the degree of linear correlation between the variables, the study implemented Pearson correlation analysis. Based on this, in order to test whether the mean value of a variable is significantly different from a known value, the study performed a one-sample t-test, which provided statistical support for testing the hypothesis.

Finally, to gain a deeper understanding of the independent variables' influence on the dependent variable, the study constructed a linear regression model, and through ANOVA analysis, not only identified the predictors with significant influence but also quantified the specific contribution of these factors to the dependent variable, thus revealing the complex causal relationship between the variables. The application of this series of statistical analysis methods not only enhanced the scientific rigor of the study but also laid a solid foundation for proposing targeted strategic recommendations.

Chapter 4 Findings and Discussion

4.1 Findings

4.1.1 Demographic Characteristics of Respondents

The demographic characteristics of the respondents are shown in Table 4.1, which shows that there is an imbalance between male and female respondents, with the number of females being higher than the number of males, with the corresponding proportions of 61.73% and 38.27%; The age distribution of the sample is concentrated in the range of 18-25 years old and 31-40 years old, with the proportions of 37.04% and 23.46%. This indicates that young people and middle-aged people and above 60 often fly Spring Airlines and use in-flight meals. The education of the survey sample was mainly concentrated in bachelor's degrees, reaching 61.73%. The main income group is concentrated in the range of 6001-10000 RMB, reaching 39.51% of the total sample. The survey sample mainly learned about Spring Airlines' in-flight meals from social media, reaching 35.8%.

Table 4.1 Distribution of Basic Characteristics of Samples

Items	Options	Frequency	Percent%
Gender	Male	124	38.27
	Female	200	61.73
Age	Under 18	16	4.94
	18-25	120	37.04
	26-30	52	16.05
	31-40	76	23.46
	41-50	20	6.17
	51-60	24	7.41
	Above 60	16	4.94
Income	Less than 3000yuan	48	14.81
	3001-6000	36	11.11
	6001-10000	128	39.51
	10001-15000	48	14.81
	More than 15,001yuan	64	19.75
Education	Senior high school	28	8.64
	Undergraduate	200	61.73
	Postgraduate and above	96	29.63
Channel	Traditional Media	72	22.22

	Social Media	116	35.80
	Familiar Recommendations	52	16.05
	Others	84	25.93

4.1.2 Chi-Square (Crosstable) Analysis

In this study, the chi-squar (crosstable) was used to investigate the relationship between behavioral intention and perceived behavioral control, subjective norms, and behavioral attitudes of a total of 3 items, and it can be seen from 4.2 that: different samples of behavioral intention showed significance for perceived behavioral control, subjective norms, and behavioral attitudes of a total of 3 items ($p<0.05$), which implies that the different samples of behavioral intention showed significance for perceived behavioral control, subjective norms, and behavioral attitudes of a total of 3 items, which is analyzed as follows. Perceived behavioral control, subjective norms, and behavioral attitudes are analyzed as follows.

Behavioral intention for perceived behavioral control shows 0.01 level of significance (chi=283.817, $p=0.000<0.01$), through the percentage of comparison of the difference can be seen, 3.0 chose 3.0 87.50%, which is significantly higher than the average level of 11.11%. 4.0 chose 4.0 71.43%, which is significantly higher than the average level of 29.63%. 3.5 chose 4.0, which is significantly higher than the average level of 29.63%. 3.5 chose 4.0, which is significantly higher than the average level of 29.63%. The percentage of 3.5 choosing 4.0 is 66.67%, which would be significantly higher than the average of 29.63%. 4.5 choosing 4.5 is 60.00%, which would be significantly higher than the average of 23.46%. 5.0 choosing 5.0 is 75.00%, which would be significantly higher than the average of 24.69% as shown in Figure 4.1.

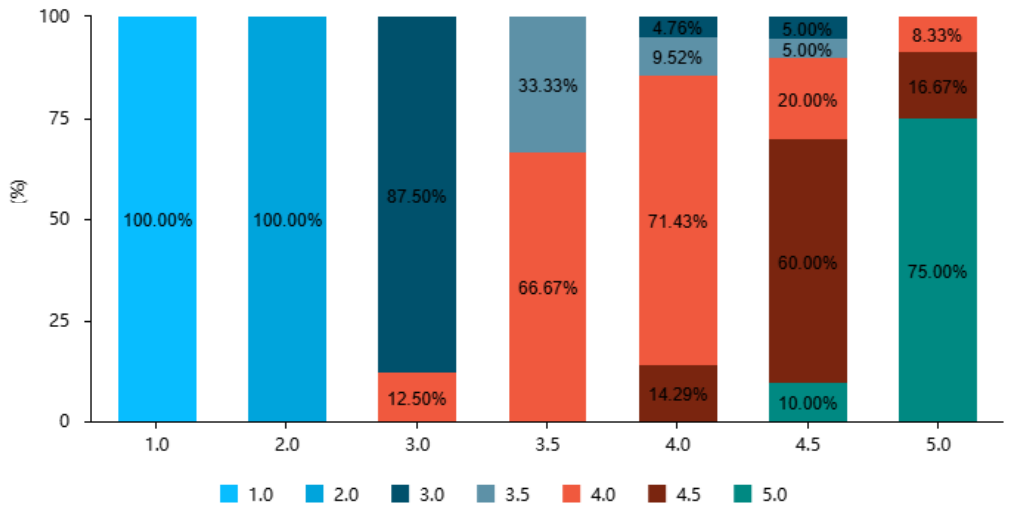

Figure 4.1 Cross-Plot of Behavioral Intention and Perceived Behavioral Control

Behavioral intention shows a 0.01 level of significance (chi=266.001, p=0.000<0.01) for subjective norms, and the difference in percentage comparison shows that 3.0 selects 3.0 by 87.50%, which is significantly higher than the average of 12.35%. 3.5 selects 3.0 by 33.33%, which is significantly higher than the average of 12.35%. The percentage of 4.0 choosing 4.0 is 66.67%, which would be significantly higher than the average of 29.63%. 4.5 choosing 4.5 is 55.00%, which would be significantly higher than the average of 23.46%. 3.5 choosing 4.5 is 33.33%, which would be significantly higher than the average of 23.46%. 5.0 choosing 5.0 is 70.83%, which would be significantly higher than the average of 23.46%, as shown in Figure 4.2.

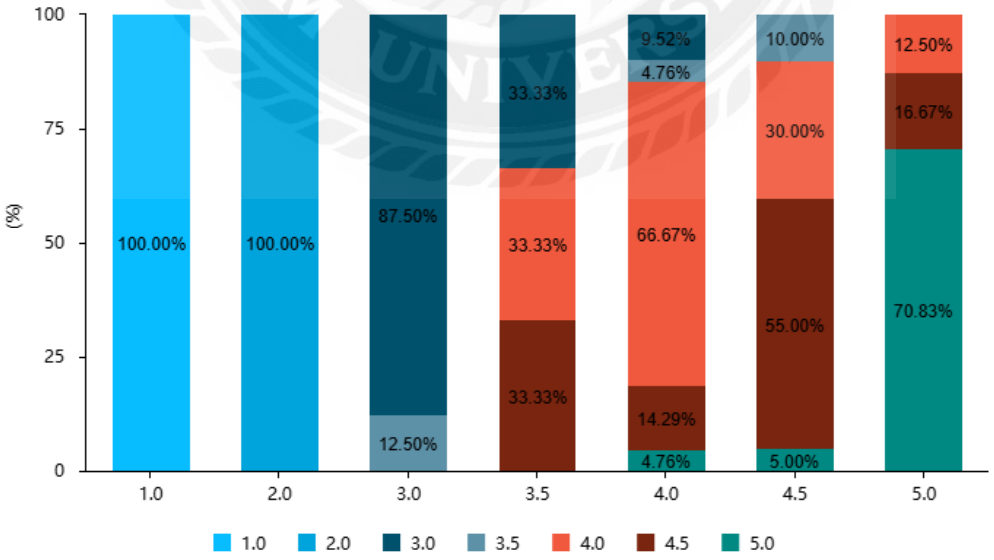

Figure 4.2 Cross-Plot of Behavioral Intention and Subjective Norms

Behavioral Intention for Behavioral Attitude showed 0.01 level of significance (chi=277.300, p=0.000<0.01), and the difference in percentage comparison shows that the percentage of 3.0 choosing 3.0, 87.50%, would be significantly higher than the average of 13.58%. 3.5 66.67% chose 4.0, which would be significantly higher than the average of 23.46%. 4.0 57.14% chose 4.0, which would be significantly higher than the average of 23.46%. 4.5 The 35.00% who chose 4.333333333333333 would be significantly higher than the average of 13.58%. 4.5 The 35.00% who chose 4.6666666666666666667 would be significantly higher than the average of 14.81%. The percentage of 5.0 choosing 5.0, 62.50%, would be significantly higher than the average of 20.99%, as shown in Figure 4.3.

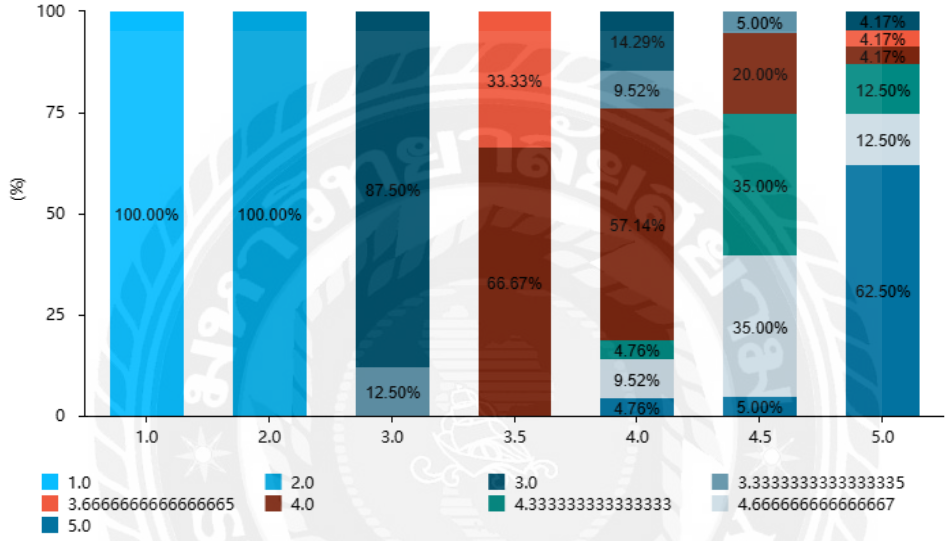

Figure 4.3 Cross-Plot of Behavioral Intentions and Behavioral Attitude

Through the analysis, as summarized in Table 4.2 below, different behavioral intention samples for perceived behavioral control, subjective norms, and behavioral attitudes all show significant differences.

Table 4.2 Chi-Square(Crosstable) Analysis

Title	Category	Behavioral Intention (%) Total	X^2	*p*
Perceived Behavioral Control	1.0	16(4.94)	283.817	0.000**
	2.0	4(1.23)		
	3.0	36(11.11)		
	3.5	16(4.94)		
	4.0	96(29.63)		
	4.5	76(23.46)		
	5.0	80(24.69)		

Subjective Norms	1.0	16(4.94)	266.001	0.000**
	2.0	4(1.23)		
	3.0	40(12.35)		
	3.5	16(4.94)		
	4.0	96(29.63)		
	4.5	76(23.46)		
	5.0	76(23.46)		
Behavioral Attitudes	1.0	16(4.94)	277.300	0.000**
	2.0	4(1.23)		
	3.0	44(13.58)		
	3.3333333333333335	16(4.94)		
	3.6666666666666665	8(2.47)		
	4.0	76(23.46)		
	4.3333333333333333	44(13.58)		
	4.6666666666666667	48(14.81)		
	5.0	68(20.99)		

* $p<0.05$ ** $p<0.01$

4.1.3 Pearson Correlation Analysis

In this study, correlation analysis was used to investigate the relationship between behavioral intention and three items of behavioral attitudes, subjective norms, and perceived behavioral control, and Pearson's correlation coefficients were used to indicate the strength of the correlations. As shown in Table 4.3, the specific analysis shows that:

1.The value of the correlation coefficient between behavioral intentions and behavioral attitudes is 0.891, and shows significance at 0.01 level, indicating that there is a significant positive correlation between behavioral intentions and behavioral attitudes.

2.The value of the coefficient correlation between behavioral intentions and subjective norms is 0.916 and shows significance at 0.01 level, indicating that there is a significant positive correlation between behavioral intentions and subjective norms.

3.The value of the correlation coefficient between behavioral intentions and perceived behavioral control is 0.927 and shows a significance at the level of 0.01, indicating that there is a significant positive correlation between behavioral intentions and perceived behavioral control.

Table 4.3 Correlation Between Variables (Pearson Correlation Matrix)

	Behavioral Intentions	Behavioral Attitudes	Subjective Norms	Perceived Behavioral Control
Behavioral Intentions	1			
Behavioral Attitudes	0.891**	1		
Subjective Norms	0.916**	0.917**	1	
Perceived Behavioral Control	0.927	0.902**	0.940**	1

*P<0.05, **P<0.01

4.1.4 One-Sample T-Test

In this study, a one-sample t-test was also conducted to analyze whether the total of behavioral intentions, perceived behavioral control, subjective norms, and behavioral attitude were significantly unequal to the number 0.0. As can be seen in Table 4.4: behavioral intentions, perceived behavioral control, subjective norms, and behavioral attitudes were all statistically significant ($p<0.05$), which means that the mean values of behavioral intentions, perceived behavioral control, subjective norms, and behavioral attitudes were statistically significantly different from the number 0.0. The mean values of behavioral intentions, perceived behavioral control, subjective norms, and behavioral attitudes are statistically different from the number 0.0. Specific analysis shows that the mean values behavioral intention, perceived behavioral control, subjective norms, and behavioral attitude are significantly higher than the number 0.0. In conclusion, it can be seen that the mean values behavioral intentions, perceived behavioral control, subjective norms, and behavioral attitudes are statistically significantly different from the number 0.0.

Table 4.4 One-Sample T-Test Analysis

Title	*N*	Min.	Max.	Mean	S.D.	*t*	*p*
Behavioral Intentions	324	1.000	5.000	4.130	0.977	38.035	0.000**

Perceived Behavioral Control	324	1.000	5.000	4.056	0.965	37.823	0.000**
Subjective Norms	324	1.000	5.000	4.031	0.966	37.550	0.000**
Behavioral Attitudes	324	1.000	5.000	4.004	0.978	36.839	0.000**

*P<0.05, **P<0.01

4.1.5 Linear Regression

Linear regression analysis was also conducted in this study and the results of the analysis are shown in Table 4.5. From Table 4.5, it can be seen that linear regression analysis was conducted by using perceived behavioral control, subjective norms, and behavioral attitudes as independent variables, while behavioral intentions was used as the dependent variable, with the model formula: behavioral intentions = 0.208 + 0.504* perceived behavioral control + 0.273* subjective norms + 0.193* behavioral attitudes, and the model R-squared value was 0.882, which implies that perceived behavioral control, subjective norms, and behavioral attitudes can explain 88.2% of the change in behavioral intentions.

Table 4.5 Linear Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	*t*	*p*	Covariance Diagnostics	
	B	Std.Error	*Beta*			VIF	Tolerance
Constant	0.208	0.168	-	1.237	0.220	-	-
Perceived Behavioral Control	0.504	0.122	0.498	4.138	0.000**	9.425	0.106
Subjective Norms	0.273	0.131	0.270	2.078	0.041*	10.985	0.091
Behavioral Attitudes	0.193	0.103	0.194	1.882	0.064	6.886	0.145
R^2	0.882						
Adjusted R^2	0.877						
F	F (3,77) =191.110, *p*=0.000						

D-W Value	1.969

Note: Dependent Variable = Behavioral Intention

*P<0.05, **P<0.01

Table 4.6 ANOVA Analysis (Intermediate Process)

	Square Sum	*df*	Mean Square	*F*	*P* Value
Regression	67.344	3	22.448	191.110	0.000
Residual	9.045	77	0.117		
Total	76.389	80			

The F-test was conducted on the model, and the analysis results are shown in Table 4.6, it was found that the model passed the F-test (F=191.110, p=0.000<0.05), which means at least one of the perceived behavioral control, subjective norms, and behavioral attitudes can have an influential relationship on behavioral intentions, which suggests that the model construction is meaningful, and the model results of this study are shown in Figure 4.4.

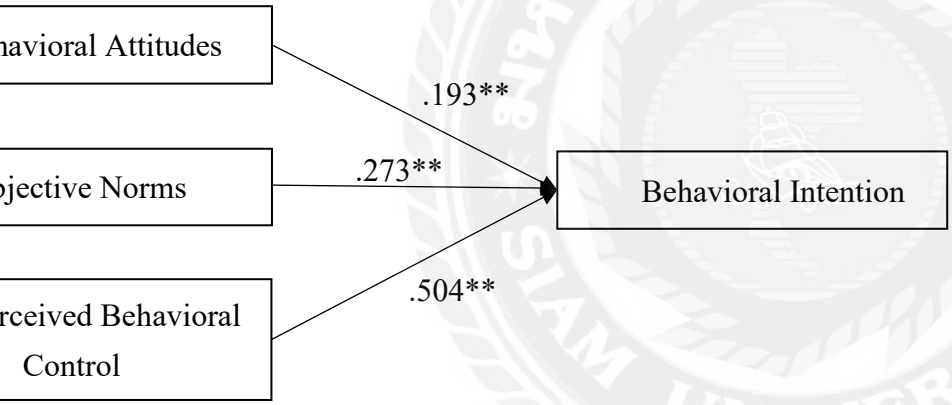

Figure 4.4 Final Model

4.2 Discussion

4.2.1 Interpretation of the Findings

The results of this study offer significant insight into the factors influencing in-flight meal behavioral intentions among Spring Airlines passengers. Consistent with the Theory of Planned Behavior, the findings suggest that behavioral attitudes (H1), subjective norms (H2), and perceived behavioral control (H3) all positively impact passengers' intentions to engage in specific in-flight meal behaviors.

Firstly, the positive relationship between behavioral attitudes and behavioral intentions (H1) indicates that passengers' evaluations of the desirability and outcomes associated with in-flight meal options are crucial in shaping their intentions to purchase

and consume these meals. This finding aligns with previous research that highlights the importance of individual attitudes in predicting behavior (Ajzen, 1991). Passengers who perceive in-flight meals as tasty, healthy, and value-for-money are more likely to intend to purchase them.

Secondly, subjective norms (H2) also emerged as a significant predictor of behavioral intentions. This suggests that passengers' perceptions of what is expected or approved by significant others, such as family, friends, or other passengers, influence their decisions regarding in-flight meals. This finding is consistent with social influence literature, which emphasizes the role of others in shaping individual behavior (Fishbein & Ajzen, 1975). Passengers who believe that others approve of purchasing in-flight meals are more likely to intend to do so themselves.

Finally, perceived behavioral control (H3) was found to have a positive effect on behavioral intentions. This suggests that passengers' beliefs about their ability to purchase and consume in-flight meals influence their intentions. This finding is consistent with the idea that perceived behavioral control reflects an individual's confidence in his or her ability to engage in the behavior as well as a key determinant of behavioral intention (Ajzen, 2002).

4.2.2 Relationship of the Findings to Previous Research

The results of this study emphasize the robustness of the TPB across settings and populations. The results of this study enrich the existing literature on the theory of planned behavior by providing empirical evidence on the applicability of the theory of planned behavior to predict behavioral intentions for in-flight meals. The present study demonstrates that the core components of behavioral attitudes, subjective norms, and perceived behavioral control significantly predicted in-flight meal behavioral intentions of Spring Airlines passengers, thereby expanding the applicability of the theory. Previous research applying the Theory of Planned Behavior has focused on various domains, including environmental behavior, health behavior, and consumer behavior (Conner & Sparks, 2005; Sheeran & Orbell, 2006). However, research on the role of TPB in predicting onboard behaviors, particularly those related to dining, remains scarce.

4.2.3 Unexpected Results

The findings of this study are generally consistent with the theoretical framework and previous studies, with no unexpected results that significantly deviate from the hypotheses. All three hypotheses were strongly supported. However, it is worth noting

that the relative strengths of the predictors may vary across different environments and populations. In the present study, Perceived Behavioral Control was a particularly strong predictor of Behavioral Intentions, suggesting that passengers' beliefs about their behavioral competence are highly influential. This finding emphasizes the importance of addressing perceived barriers to in-flight meal consumption, such as cost, availability, and dietary restrictions, to increase passengers' behavioral intention and consume in-flight meals.

Furthermore, although the study was conducted with Spring Airlines passengers, future research could explore whether these findings apply to other airlines, particularly those with different service patterns and meal options. In addition, exploring the role of demographic factors (e.g., age, gender, income) in moderating the relationship between TPB factors and behavioral intentions could provide further insight into the determinants of in-flight meal behavior.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

The purpose of this study was to apply the theory of planned behavior to explore Spring Airlines passengers' behavioral intentions of in-flight meals and to propose optimization strategies accordingly. In terms of theoretical framework, this study adopted the theory of planned behavior and designed a targeted questionnaire. The questionnaires were widely distributed and collected, followed by detailed data analysis to reveal how passengers' behavioral attitudes, subjective norms, and perceived behavioral control of in-flight meals affect their behavioral intentions. This study provides an in-depth analysis of the service quality of Spring Airlines' in-flight meals, identifying the problems and their root causes.

The findings of this study showed that H1, H2, and H3 were supported, as shown in Table 5.1 below. The significant effects of behavioral attitudes, subjective norms, and perceived behavioral control on passengers' behavioral intentions of in-flight meals were verified, and the problems of Spring Airlines' in-flight meals in terms of service quality were also analyzed in depth. The findings provide valuable insights and strategic recommendations for Spring Airlines to optimize the service quality of its in-flight meal service. By implementing targeted strategies, Spring Airlines can significantly increase passenger satisfaction and loyalty, thereby enhancing market competitiveness.

Table 5.1 Hypothesis Test Result

	Hypothesis	Result
1	Behavioral attitudes positively impact on the behavioral intentions of Spring Airlines passengers at in-flight meals.	Supported
2	Subjective norms positively impact on the behavioral intentions of Spring Airlines passengers at in-flight meals.	Supported
3	Perceived behavioral control positively impacts on the behavioral intentions of Spring Airlines passengers at in-flight meals.	Supported

1. The positive impact of behavioral attitudes on behavioral intentions indicates that Spring Airlines passengers who have a favorable attitude toward in-flight meals are more likely to express a strong intention to purchase or consume them. Passengers who believe that in-flight meals contribute positively to their overall flight experience, such as improving comfort or satisfaction, are more inclined to make a purchase decision.

2. The positive impact of subjective norms on behavioral intentions suggests that passengers' decisions regarding in-flight meals are influenced by social pressures or expectations from significant others, such as fellow passengers, family, or even the general perception of in-flight meal consumption as a social norm. When passengers perceive that others approve of or engage in purchasing meals during flights, they are more likely to intend to do the same.

3. The positive impact of perceived behavioral control on behavioral intentions shows that passengers' beliefs in their ability to easily access and afford in-flight meals significantly influence their intention to purchase them. When passengers feel they have the financial resources, time, or opportunity to purchase a meal during the flight, they are more likely to intend to do so, making perceived behavioral control an important determinant of their purchasing behavior.

5.2 Recommendation

Through an in-depth analysis of Spring Airlines passengers' in-flight meal behavioral intentions, this study confirms that Spring Airlines passengers' behavioral attitudes, subjective norms, and perceived behavioral control all have a significant impact on their behavioral intentions. Combined with the current development trend of the airline industry and the diversity of passenger needs, this study proposes the following specific strategic recommendations aimed at optimizing in-flight meal services and enhancing passenger satisfaction:

1. Enhance insight into passenger needs, enrichment of meal varieties, and narrow service gaps

Spring Airlines should make full use of big data technology to deeply analyze passengers' dietary preferences, health needs and consumption habits to achieve precise positioning. Based on this, it should continuously enrich the variety of in-flight meals and bring surprises and freshness to passengers by regularly rotating menus and launching special meals in conjunction with festivals. At the same time, in view of the problem of large gap in class service experience, it is suggested that airlines gradually narrow the gap between economy class and business class in terms of meal service, such as promoting some branded meals or special snacks to the economy class, in order to enhance the satisfaction and loyalty of economy class passengers.

2. Combine regional characteristics, launch special meals for special lines and strengthen brand image

Drawing on the successful experience of other airlines, Spring Airlines can combine the specialties of the regions through which the route passes to launch special

meal services, which can not only arouse the resonance of passengers, but also enhance the attractiveness of the route. At the same time, integrating environmental protection concepts into marketing strategies, such as promoting environmentally friendly packaging and reducing the use of disposable tableware, demonstrates the healthy, delicious and environmentally friendly characteristics of Spring Airlines' meals, which helps to build a positive brand image. Through multi-channel publicity, such as social media and membership programs, passengers' knowledge and expectations of meal services are enhanced, further improving their behavioral intentions.

3. Integrate platform resources to optimize passengers' in-flight experience and optimize marketing tools

Drawing on the successful experience of China Southern Airlines' “e-travel”, Spring Airlines should integrate existing platform resources to provide passengers with more convenient and personalized meal services. For example, passengers can book and select meals in advance through the airline's APP, which not only improves passenger participation, but also avoids the problem of insufficient and wasteful in-flight meals. At the same time, implement precision marketing and launch personalized meal offers and promotions to accurately reach potential passengers and increase conversion rates. Introduce incentives such as points exchange and exclusive member benefits to enhance passenger motivation and loyalty and promote airline brand building and market expansion.

4. Improve the meal safety and quality management system to ensure that passengers' expectations are met.

Enhancing the quality of the in-flight meal service is inseparable from a perfect safety and quality management system. Airlines should establish a sound meal evaluation system, covering safety, hygiene, health, taste and other aspects, and ensure that they fit passenger expectations. Through continuous monitoring of passenger feedback, timely adjustment of meal quality and service processes to ensure a high degree of consistency with passenger expectations.

5. Focus on passenger needs, innovate meal services, and promote sustainable development

As the quality of airline services continues to improve, passenger demand for meal services has become increasingly diversified and personalized. Spring Airlines should follow the pace of the times, innovate its meal services, introduce more food into the cabin, and solve the problems of single varieties of meals and poor taste caused by the special characteristics of the cabin environment. At the same time, we will do a good job of promotion and feedback and make full use of the spreading effect of social

platforms and media to increase passengers' awareness and satisfaction of in-flight meals. Through the innovation of meal service, to meet the needs of passengers with diversified tastes, to enhance the passenger service experience, and then enhance the marketing revenue and brand image, to promote the sustainable development of the aviation industry.

In summary, by deepening passenger demand, strengthening brand image with regional characteristics, integrating platform resources to optimize passenger experience, improving meal safety and quality management system, and focusing on passenger demand to innovate meal services, Spring Airlines is able to significantly improve the quality of in-flight meal services, meet the diversified needs of passengers, and improve satisfaction and loyalty, while promoting the sustainable development of the aviation industry.

5.3 Further Study

This study applied the Theory of Planned Behavior to examine Spring Airlines passengers' behavioral intentions toward in-flight meals, and all three hypotheses were supported by the data. However, the research on behavioral intentions toward in-flight meals is preliminary, and at present, many related issues in the airline service industry deserve in-depth consideration and further exploration, to be solved one by one in future research:

1. Moderating role of demographic variables

While the current study conducted a demographic analysis, future research could delve deeper into the moderating role of demographic variables such as age, gender, income level, and frequency of travel on the relationship between behavioral attitudes, subjective norms, perceived behavioral control, and behavioral intentions. This future research could provide a more nuanced understanding of how different groups of passengers perceive and respond to in-flight meal choices.

2. The role of emotion and social identity

TPB focuses primarily on cognitive factors, but emotions and social identity can also play an important role in the formation of behavioral intentions. Future research could explore how passengers' emotions such as excitement, relaxation, or anxiety on flights affect passengers' willingness to purchase in-flight meals.

3. Comparative analysis with other airlines

A comparative analysis with other airlines, particularly those with different in-flight meal service models, could provide valuable insights into the unique factors that influence passenger behavioral intentions towards Spring Airlines' in-flight meals. This

may involve differences in service quality, pricing strategies, meal selection and marketing approaches, and how these factors interact with passengers' cognitive and affective responses.

4 Analysis of other theoretical studies

While TPB provides a theoretical framework for this study, incorporating other theoretical perspectives can provide new insights. For example, combining the Self-Determination Theory (SDT) or Theory of Reasoned Action (TRA) in the concepts can be combined to provide a more comprehensive understanding of the motivations and barriers that influence passengers' in-flight dining decisions.

In conclusion, the current study has made significant progress in applying TPB to Spring Airlines' in-flight meal behavioral intentions, but there are still many questions to be explored in this area. These avenues for further research will allow for a deeper understanding of the factors that influence passenger behavior and the development of more effective strategies to enhance the passenger's in-flight experience.

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Appendix

Dear Sir/Madam,

Thank you for your participation in this survey, which may take up to 3-5 minutes of your valuable time. This survey will be completed anonymously and will be used for academic purposes only. Your personal information will be kept strictly confidential and will not be disclosed to the public. Thank you again for your cooperation!

Part 1: Screening Questions

1. When was the last time you flew with Spring Airlines?

A. Within the last month B. 1-3 months C. 3-6 months

D. 6-12 months E. More than 12 months

2. Which cabin class do you usually choose on Spring Airlines?

A. Business Class B. Economy Class

Part 2: Personal Information

1. Gender?

A Male B Female

2. Age?

A. Under 18 B. 18-25 C. 26-30 D. 31-40

E. 41-50 F. 51-60 G. Above 60

3. Monthly income?

A. Less than ¥3000 B. 3001-6000 C. 6001-10000 D.10001-15000

E. More than ¥15001

4. The highest education?

A. Senior high school B. Undergraduate C. Postgraduate and above

6. How did your channel find out about Spring Airlines' in-flight meals?

A. Traditional Media B. Social Media C. Familiar Recommendations D. Others

Part 3: Survey Measurement Form

Please judge to what extent you agree with the following statement: choose the most appropriate option and mark the corresponding number "√. " The questionnaire used a five-point Likert scale with scores ranging from 1-5, representing strongly disagree, disagree,

average, agree, and strongly agree, respectively. Higher scores indicate greater agreement with the item.

Measuring Item	Strongly Disagree	Disagree	Average	Agree	Strongly Agree
Behavioral Attitudes					
1. I think the quality of in-flight meals provided by Spring Airlines is very good.					
2. I think the meals provided by Spring Airlines meet my taste preferences.					
3. I think the meals provided by Spring Airlines are good value for money and very reasonably priced.					
Subjective Norms					
4. My family/friends recommended that I purchase Spring Airlines in-flight meals during my trip.					
5. Reviews on social media influenced my decision to purchase Spring Airlines meals.					
Perceived Behavioral Control					

6. I believe that I can enjoy in-flight meals during the flight, and I think it is very convenient to purchase in-flight meals on Spring Airlines flights.					
7. I think Spring Airlines offers a wide selection of in-flight meals that meet my needs.					
Behavioral Intentions					
8. I am willing to purchase in-flight meals on future Spring Airlines flights.					
9. I am willing to pay extra for Spring Airlines' in-flight meals.					