AIRLINES: WHAT EXPLAINS THE CHOICE OF BRAZILIAN TOURISTS?

COMPANHIAS AÉREAS: O QUE EXPLICA A ESCOLHA DOS TURISTAS BRASILEIROS?

AEROLÍNEAS: ¿QUÉ EXPLICA LA ELECCIÓN DE LOS TURISTAS BRASILEÑOS?

https://doi.org/10.56238/sevened2026.008-172

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ABSTRACT

According to the Logistics Bulletin released by the National Civil Aviation Agency (ANAC), air transport accounted for almost 70% of interstate travel on regular routes in 2019. In the Planned Behavior Theory (PBT) model, behavioral intention is directly influenced by three components: attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). Although PBT has been used in many studies related to transportation (Hsiao; Yang, 2010; Jing et al., 2014), it has limited application in passenger research in the LCC (low-cost carrier) market. Therefore, this research aimed to expand the theory of planned behavior focusing on Brazilian low-cost airlines. The results showed that PBT, when applied to understanding Brazilian low-cost airlines, has the following explanatory variables: risk, quality, and frequency.

Keywords: Brazilian Tourists. Brazilian Airlines. Theory of Planned Behavior.

RESUMO

Segundo o Boletim de Logística divulgado pela a Agência Nacional de Aviação Civil (ANAC) o transporte aéreo foi responsável por quase 70% dos embarques para viagens interestaduais em linhas regulares em 2019. No modelo TCP (Teoria do Comportamento Planejado), a intenção comportamental é diretamente influenciada por três componentes: atitudes, normas subjetivas e controle comportamental percebido (Ajzen, 1991). Embora A TCP tenha sido usada em muitos estudos relacionados ao transporte (Hsiao; Yang, 2010; Jing et al.,2014), ele tem aplicação limitada na pesquisa de passageiros do LCC (mercado de empresas aéreas de baixo custo, ou Low Cost Carriers). Nesse ínterim, essa pesquisa teve por objetivo expandir a teoria do comportamento planejado com foco nas companhias aéreas brasileiras de baixo custo. Teve como resultados encontrados que TCP quando aplicada a compreensão das companhias aéreas brasileiras de baixo custo tem como variáveis de explicação: risco, qualidade e frequência.

Palavras-chave: Turistas Brasileiros. Empresas Aéreas Brasileiras. Teoria do Comportamento Planejado.

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RESUMEN
Según el Boletín de Logística publicado por la Agencia Nacional de Aviación Civil (ANAC), el transporte aéreo representó casi el 70% de los viajes interestatales en rutas regulares en 2019. En el modelo de la Teoría del Comportamiento Planificado (TCP), la intención de comportamiento se ve directamente influenciada por tres componentes: actitudes, normas subjetivas y control conductual percibido (Ajzen, 1991). Si bien la TCP se ha utilizado en numerosos estudios relacionados con el transporte (Hsiao; Yang, 2010; Jing et al., 2014), su aplicación en la investigación de pasajeros en el mercado de aerolíneas de bajo costo (LCC) es limitada. Por lo tanto, esta investigación tuvo como objetivo ampliar la teoría del comportamiento planificado, centrándose en las aerolíneas brasileñas de bajo costo. Los resultados mostraron que la TCP, aplicada a la comprensión de las aerolíneas brasileñas de bajo costo, presenta las siguientes variables explicativas: riesgo, calidad y frecuencia.

Palabras clave: Turistas Brasileños. Aerolíneas Brasileñas. Teoría del Comportamiento Planificado.

1 INTRODUCTION

According to the Logistics Bulletin released by the National Civil Aviation Agency (ANAC), air transport was responsible for almost 70% of shipments for interstate travel on regular lines in 2019. The airline sector is fundamental to tourism activities and, therefore, it is said to catalyze, that is, it induces part of other activities involved in tourism. (ANAC, 2023).

According to the Brazilian Association of Airlines (ABEAR), the airline sector was responsible for 25.6% of the gross value added of tourism in 2019 and 27.1% of the taxes paid related to tourism activity. Overall, the activities of the airline sector catalyzed 53.2 billion reais in value added via induction of tourism-related activities and R$ 16.5 billion in taxes paid for such activities.

Azul Linhas Aéreas Brasileiras, for example, is a national aviation company, headquartered in São Paulo. Created in 2008, the company began its activities focused on regional routes from the airport of Viracopos (SP).

In a short time, Azul conquered a large number of passengers. Thus, it expanded its operations in the national territory and started to offer selected international routes, such as Argentina, the United States, Portugal and Uruguay.

In 2014, Azul incorporated *Trip* Linhas Aéreas and became the third largest company in number of passengers. As of June 2022, its fleet had more than 140 aircraft, with national models from Embraer and international models from *Airbus and Avions de Transport Régional* (ATR) (Genial Investimentos, 2023).

Azul's IPO took place in 2017, in an initial public offering (IPO) that raised around R$ 643 million. At the time, preferred shares were issued under the AZUL4 ticket and these are shares that guarantee preference in receiving dividends. (Genial Investimentos, 2023). Another company that operates with air transport is Gol Linhas Aereas Inteligentes S.A. Created in 2001 in Rio de Janeiro, it is among the largest aviation companies in Brazil. As of June 2022, the company had more than 120 aircraft and carried out different national and international routes. (Genial Investimentos, 2023).

Gol also operates with logistics, through GAC Inc., in addition to owning two financial services companies (GOL *Finance* and GOL *Finance Cayman*). Throughout its history, the company has acquired Varig and Webjet, as well as entered into alliances with Delta and *Air France* — KLM. (Genial Investimentos, 2023).

Taking into account that tourism stimulates economic and social development by generating employment in addition to moving different sectors of the economy, this study is justified by the investigation of how low-cost air travel stimulates tourism. In the meantime, the research problem raised is: Does the Theory of Planned Behavior (TCP) explain the

choice of air transport by Brazilian tourists? Aiming to expand the theory of planned behavior with a focus on Brazilian low-cost airlines.

2 THEORETICAL FRAMEWORK

In recent decades, there has been a considerable increase in academic terms regarding the enrichment of the theoretical and methodological field of Tourism. However, aiming at a greater unfolding of the object itself, a relevant item may not be mentioned frequently, namely: the history of Tourism and Travel. (Cisne & Gastal, 2010).

In this sense, Rodrigues (2000) states that the tourism industry has presented unusual results in developing countries, since it not only contributes to the creation of jobs, the increase in income, but also contributes to reducing regional differences and improving the quality of life of less developed regions, due to the execution of infrastructure works, such as transportation, sanitation, energy etc.

Although there is no single definition for tourism, the United Nations World Tourism Organization, in its recommendations for tourism statistics, defines it as "the activities that people carry out during their travels and stay in places other than those in which they live, for a period of time less than one consecutive year, for leisure purposes, business and others" (Campos, 2007).

Currently, tourism encompasses the correlation of different sectors of economic activity, with the objective of promoting cultural, religious, leisure or business travel. For this, it is necessary to provide transportation, accommodation, recreation, food and other related services to meet the needs of domestic and international travelers, from arrival to departure from a city, state or country (Colantuono, 2015).

In summary, tourism encompasses all the activities that people carry out during their trips and stays in places other than their usual surroundings, for a consecutive period of less than one year, for leisure, business or other purposes (UNWTO, 2001).

The degree of market concentration in the operations of *charter* airlines (those that charter aircraft to perform flights that are not part of their scheduled network) varies between countries and even between locations within a country, but appears to be highly concentrated in key markets. By the end of the 1980s, for example, the five major *charter* airlines held a combined market share, in terms of miles carried per passenger, of more than 80% in Spain and approximately 70% in the United Kingdom (Bote Gómez & Sinclair, 1991).

The dominance of major *charter* airlines is being challenged, however, by the emergence of low-cost airlines, whose pricing strategies represent a significant shift in the

behavior of the airline industry (Piga & Filippi, 2002) and by increased price-based competition among major airlines (Milman, 1997; French, 1998).

In the era of globalization, air travel has evolved from a luxury reserved only for the wealthy to the primary mode of transportation for most people traveling the world, whether for business or pleasure. This is evidenced not only by the substantial increase in the number of people choosing to travel by air in recent years, but also by the fact that the number of people traveling by air is expected to increase from nearly 2 billion in 2021 to 2.6 billion in 2026 and to 8.2 billion in 2037. (Thongkruer & Wanarat, 2023).

As is evident in the first quarter of 2022, the total number of domestic air passengers was 9.74 million, increasing by 23.4 percent or 1.85 million, compared to the previous quarter in 2021, in which the total number of domestic passengers totaled 7.89 million. . (Thongkruer & Wanarat, 2023).

In view of this, the market for low-cost airlines, or *Low Cost Carriers* (LCC), as they are universally known, had its beginning with the change in *Southwest Airlines*' business model, when there was the deregulation of air transport in the United States of America (USA), in 1978. (Hiney, et al., 2025).

A review of the literature reveals important gaps in the research of LCC passengers (Low Cost *Carriers* market). First, the existing literature focuses mainly on intermodal choices between FSCs (*Full Service Carrier*), that is, companies that still embed many services in their business strategies, and LCCs, which have their business strategies focused on low cost and consequently for not providing extra services, leaving aside the study of passengers' behavioral intentions. (Hiney, et al., 2025).

While these studies identified important factors, such as price and service, for passengers to choose LCCs (low-cost *carriers*) over other modes of transportation, they did not provide an in-depth analysis of how these factors influenced passengers' motivation to use LCCs. (Hiney, et al., 2025). In view of this, the application of the Theory of Planned Behavior (TCP) aims to understand the criteria that lead to the choice of air transport by the Brazilian tourist.

The theory of planned behavior – TCP – is one of the most important theoretical frameworks for predicting human behaviors (Ajzen, 2002). In the TCP (Theory of Planned Behavior) model, behavioral intention is directly influenced by three components: attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991).

While the three components can provide useful predictions of intention and behavior, the model is open to the inclusion of additional predictors if they can be shown to capture a significant proportion of the variation in intention or behavior after the theory's current

variables have been considered (Ajzen, 1991). The flexibility and openness of the model make TCP (Theory of Planned Behavior) a useful conceptual framework for examining intentions and behaviors in various domains, including air transport. Although TCP (Theory of Planned Behavior) has been used in many transport-related studies (Hsiao & Yang, 2010; Jing et al., 2014), it has limited application in the search for LCC (*Low Cost Carriers) passengers*.

The Theory of Planned Behavior (TCP) (Ajze, 1991,2002) is a parsimonious model for explaining human behavior, which is widely applied in a variety of fields, including healthcare, marketing, education, etc. The core idea behind TCP is that a person's actual behavior is immediately determined by behavioral intention, which is a three-construct function, that is, attitude, subjective norm and perceived behavioral control.

Specifically speaking, behavioral intention is a measure of the strength of an individual's willingness to perform a certain behavior (Ajzen 1991). By definition, attitude is a reflection of a person's evaluative reaction to the performance of a certain behavior, for example, happy or sad, favorable or unfavorable, useless or useful. The more positive attitude individuals have, the stronger their intention to conduct a particular behavior (Beck & Ajzen 1991).

The subjective norm (SN) refers to the "perceived social pressure to perform or not to perform the behavior" (Ajzen 1991), which is related to the perception of the expectations of important others. It has been proven that the subjective norm positively affects behavioral intention (Castanier et al. 2013; Wang et al. 2016).

Regarding perceived behavioral control (PBC), it was added to the initial theory of rational action (Ajzen & Fishbein 1980; Fishbein & Ajzen 1975), and reflects the extent to which a person perceives constraints and their capacities on target behavior.

Simply put, it is defined as the degree of ease or difficulty in performing the behavior as being perceived by an individual (Ajzen 1991). Taking the choice of mode of transport as an example, individuals are more intentional to travel by a certain mode if they have some positive evaluations of it, perceive a greater degree of social pressure to use it, and are sure that they have the necessary skill. In addition, when perceived behavioral control coincides with actual behavioral control, it also exerts a direct influence on behavior (Ajzen 1991).

Although TCP (Theory of Planned Behavior) has been used in many studies related to transportation (Hsiao & Yang, 2010; Jing et al., 2014), it has limited application in LCC passenger research. The existing literature on passenger behavior in the context of LCC is primarily focused on intermodal choice between LCCs and FSCs using choice models (Ong & Tan, 2010; Chang & Sun, 2012; Jung & Yoo, 2014) and in the perception of LCCs based

on service-related models, especially the SERVQUAL model that measures five dimensions of quality of service, including tangible, responsiveness, reliability, assurance, and empathy (Ariffin et al., 2010; Kim & Lee, 2011; Lerrthaitrakul & Panjakajornsak, 2014).

In China, Chiou & Chen (2010) examined the relationships between service factors, satisfaction, airline image, and behavioral intentions in passengers' choice of LCCs and FSCs. The results indicated that the perception of service was most important to FSC passengers, while the value of service had the greatest effect on intentions among LCC passengers (Chiou & Chen, 2010). Passenger attitudes and behaviors received limited attention in the survey on LCC passengers. Only one study by Buaphiban & Truong (2017) developed a TCP (Theory of Planned Behavior) model to examine passenger purchase intentions and actual LCC ticket purchases in Thailand. The study focused exclusively on the components of TCP (Theory of Planned Behavior), and the authors reported that passenger attitudes and subjective norms had a positive impact on purchase intentions, while intention and perceived behavioral control significantly influenced purchase behaviors. The Theory of Planned Behavior is one of the most important theoretical frameworks for predicting human behaviors (Ajzen, 2002).

While these studies identified important factors, such as price and service, for passengers to choose LCCs over other modes of transportation, they did not provide an in-depth analysis of how these factors influenced passengers' motivation to use LCCs. Second, there is a significant gap in understanding the motivation of LCC passengers in China, A country with a large population base, rapid economic development, and a huge market potential for low-cost travel. The study by Chiou & Chen (2010) focused primarily on service-related factors, which does not provide a complete picture of the underlying reasons for passengers to use LCCs. The effect of other factors, such as attitude and behavioral factors on the use of LCCs, has not yet been examined.

In addition, it is not known how context-specific factors, especially cultural factors, may influence passengers' decisions when using LCCs in China. Finally, although the TCP (Theory of Planned Behavior) study by Buaphiban & Truong (2017) provides insight into the influence of attitude and behavior on LCC passenger intent, the findings were derived from the mature LCC market in Thailand, which is very different from China, where the LCC market is at an early stage of development. Clearly, a new research model should be developed focusing on the behavioral intentions of Chinese passengers and including relevant factors to gain deeper insights into the intention to use LCCs in China.

According to the theory, three latent constructs explain intention, namely attitude toward behavior, subjective norm, and perceived behavioral control. Attitude is a person's

positive or negative evaluation of behavior and reflects beliefs about the likely outcomes of behavior (behavioral beliefs); subjective norm is the perception of social pressure to engage or not engage in the behavior, based on the perceived expectations of important referents (normative beliefs), such as the person's partner, parents, friends, or colleagues; and perceived behavioral control refers to the perceived ability to perform the behavior, taking into account beliefs about potentially facilitating or interfering factors, such as lack of financial resources, cooperation from others, and business experience (control beliefs). The three explanatory constructs of intention (attitude, subjective norm, and perceived behavioral control) are not necessarily independent. They are correlated due to common external causes and interactions between attitude, subjective norm, and perceived behavioral control are possible. TCP (Theory of Planned Behavior) assumes that intention has a strong causal influence on behavior (Fishbein & Ajzen, 1975). In view of this, the hypotheses for this research arise:

H1: The price is positively related to the intention of passengers to use Brazilian airlines. The ticket price of LCCs (*Low Cost Carriers*), which are typically 40–60% lower than their full-service competitors (O'Connell & Williams, 2005; Lawton, 2002), is often the main reason for passengers to choose LCCs over FSCs (Full Service Carrier, i.e., companies that still embed many services in their business strategies) (Chang and Sun, 2012; Sai et al., 2012; Jung & Yoo, 2014; Ong & Tan, 2010). Ong & Tan (2010) investigated determining factors in the choice between full-service Malaysia Airlines and low-cost AirAsia and found that fares are significant in the choice of airline.

In a similar study, Sai et al. (2012) indicated that LCC passengers in Malaysia placed great emphasis on low price, which reconfirmed the perception that price is the most important reason for choosing LCCs. The dominant effect of price; however, has been questioned in recent years due to changing market conditions (Kim & Lee, 2011). These passengers are likely to be price-sensitive and, as such, are potential customers for low-cost travel (Fu et al., 2015). Therefore, it is necessary to examine the effect of price on the intentions of Brazilian passengers.

The quality of service is often less important to LCC passengers compared to FSC passengers. In traditional LCC markets (*Low Cost Carriers*), passengers consider service elements such as in-flight service and punctuality to be insignificant in their choices between LCCs and FSCs (Mikuliÿ & Prebežac, 2011). In emerging markets LCC; however, there seems to be market space for LCCs to offer low rates and high quality of service (Kim & Lee, 2011; Yeung et al., 2012).

Although these LCCs (low-cost *carriers*) still emphasize low costs and low fares, they

achieve cost reduction by improving efficiency in their operations, rather than reducing services (Saha & Theingi, 2009). Studies have shown that passengers of LCCs (*Low Cost Carriers*) are not only concerned with low prices, but also with services (Yang et al., 2012). The literature also shows that the quality of service can influence both consumer satisfaction (Ariffin et al., 2010; Kim & Lee, 2011) and behavioral intentions in relation to LCCs (Lerrthaitrakul & Panjakajornsak, 2014). The proposed model thus examines the quality of service of LCCs (*Low Cost Carriers* market), which is indicated by: H2: The quality of service is positively related to passengers' intentions to use Brazilian airlines.

Risk aversion in this context refers to the degree to which members of a society feel uncomfortable or uncertain in their consumption choices (Hofstede, 1984), for this study it is relevant because the decision to choose a mode of transport often contains uncertainties and risks related to the characteristics of the means of transport. Brazilian culture is considered more conservative in decision-making (Cheng, 2010), which explains the highly uncertain behaviors of Brazilian consumers (Quintal et al., 2010). In the context of LCC (*Low Cost Carriers*), this may mean that, since consumers associate LCCs with uncertainties, they would avoid using LCCs, due to the influence of their risk-averse culture, such as the quality of the service provided. Thus, H3 emerges: Risk aversion is negatively related to passengers' intentions to use LCCs (*Low Cost Carriers market*) in Brazil.

Technological effectiveness, which refers to the perceived control of knowledge and skills (internally) to perform a behavior successfully (Armitage & Conner, 1999), is sometimes treated as synonymous with perceived behavioral control (Ajzen, 1991; Conner & Armitage, 1998), who is more concerned with access to resources needed (externally) to perform a behavior successfully (Armitage & Conner, 1999; Conner & Armitage, 1998). In particular, this study uses technological effectiveness, which is relevant in the context of the LCC (*Low Cost Carriers* market) because, as airlines sell tickets directly to consumers through their websites to circumvent travel agents and their commissions (Escobar-Rodríguez & Carvajal-Trujillo, 2014), LCC passengers (low-cost airline market, or *Low Cost Carriers*) need sufficient IT knowledge and skills to research ticket information and buy it online. Previous studies indicate that a passenger's intention to use LCCs (low-cost *carriers*) may be affected by the person's technology-related skills and experience (Chang and Hung, 2013).

The role of technological effectiveness in motivating LCC passengers has received little scholarly attention. Thus, H4 is proposed: Technological effectiveness is positively related to passengers' intentions to use LCCs in Brazil. High frequency is an effective commercial strategy for LCCs (*Low Cost Carriers*) to compete with FSCs. Flight frequency appears to have a different impact on the choices of business travelers and "tourist"

passengers for LCCs. Flight frequency is an important consideration for business travelers to choose LCCs (Mason, 2001), but it is often insignificant for tour passengers to use LCCs. (Mikuliÿ & Prebežac, 2011). Capacity constraints and congestion at airports mean that LCCs (low-cost *carriers*) are unable to achieve the desired turnaround times (frequency), which are essential to the success of most LCCs (Liang & James, 2009). The extent to which flight frequency affects passengers' intentions in relation to LCCs (*Low Cost Carriers*) was not examined for the Brazilian tourist.

Thus, Hypothesis 5 arises, namely: Frequency is positively related to passengers' intentions to use LCCs (*Low Cost Carriers* market) in Brazil. In traditional LCC markets, airport access is often inconvenient because LCCs (Low Cost Carriers) typically operate from secondary airports far from the city center to save costs and minimize aircraft turnaround time (Abdullah & Takahashi, 2016). Passengers in these markets are generally willing to accept inconvenience in exchange for lower airfares, fewer delays, and easier ground transportation (Tierney & Kuby, 2008).

Jung & Yoo (2014) suggested that access time significantly influenced passenger choice involving LCCs (*low cost carriers*), especially for business passengers who perceived greater value from access time and were willing to pay more to shorten access time. In Brazil, LCCs operate mainly at major airports, which means that access can play an important role in passengers' decisions when using LCCs. Thus, H6 is proposed: Access is positively related to passengers' intentions to use LCCs (*Low Cost Carriers*) in Brazil.

3 METHODOLOGY

To fill in the gaps in the literature, this study proposed an expanded model of TCP (Theory of Planned Behavior) focusing on the service provision of Brazilian airlines and Brazilian tourists.

Three principles guide the selection of external factors. Firstly, previous studies often indicate the importance of some factors in passenger choice for LCCs. Price, for example, is often considered significant for passengers to choose between LCCs and FSCs and will therefore be included in the model.

Additionally, because the airline industry is a service industry, service-related attributes such as frequency, airport access, and quality of service can influence passengers' travel decisions; thus, they will be added to the template.

Consumption decisions can be influenced by cultural factors, where culture strongly influences personal behaviors (Luo, 2019). For this study, a much-researched and highly relevant cultural factor will be included in the model. In total, six external factors, including price, quality of service, risk aversion (cultural factor), technological effectiveness, frequency, and access were added to the TCP (Theory of Planned Behavior) model. (Pan & Truong, 2018).

The universe studied in this research will be the tourism sector, specifically companies directly related to tourism, namely: air transport. Two air transport companies listed on the BM&F BOVESPA were considered, namely: Azul Linhas Aéreas Brasileiras and Gol Linhas Aereas Inteligentes S.A. The criterion for choosing the sample of companies is non-probabilistic and for convenience, since the selection of the companies studied here were chosen by the author herself, as they are publicly traded and disclose their data. (Malhotra, 2001).

Thus, at first this research was of a qualitative nature, which had as an instrument of data analysis the financial statements and explanatory notes disclosed to the shareholders made available by the companies on the BM&FBovespa website, that is, content analysis. (BM&FBovespa, 2024).

Based on the reports released in the period from 2017 to 2024, the categories of: cash, investments and net income were observed for analysis of the companies. The years 2020, 2021 and 2022 were discarded because they were years of COVID19 pandemic and that, if analyzed, could compromise the analysis carried out, since the airline sector was one of the most affected by this public calamity. The period chosen is due to the fact that the company Azul Linhas Aéreas S.A. made its IPO - 2017 *Initial Public Offering* or Initial Public Offering which is the process of launching the shares of a company on the stock exchange, for leveling

the analysis the same period was considered for the company Gol Linhas áreas Inteligentes S.A. The software used for analysis was Atlas - TI which showed the codes with different colors, according to the frequency they were marked in the texts. (Denzin, N. & Lincoln, 2020).

Thus, the categories related to the questionnaire of this research were:

Table 1

Qualitative categories

Category	Frequency	Percentage
When choosing an airline, you choose to:		
Latam	**79**	**38,92%**
Goal	77	37,93%
Blue	44	21,67%
Avianca	3	1,48%
Passaredo	0	0,00%
When you make trips with air transport, you make them:		
alone most of the time	36	17,73%
accompaniedmost of the time	**143**	**70,44%**
Always alone	2	0,99%
Always accompanied	22	10,84%
How often you travel by air:		
up to 01 time a year	**123**	**60,59%**
from 02 to 04 times a year	67	33,00%
more than 04 times a year	13	6,40%
When traveling, the main reason for them is:		
Leisure	**193**	**95,07%**
Business	8	3,94%
Other	2	0,99%

Source: prepared by the author, 2025.

Thus, it is observed that the most remembered company was Latam Airlines S.A. with 79 respondents out of 203 analyzed, which corresponds to 38.92%; 143 people make their trips accompanied most of the time, which represents 70.44%; 123 respondents travel up to 01 time a year and the reason for 95.07% of the respondents is leisure travel.

Such answers emerged from the analysis carried out that aims to analyze consumption habits and achieve the objectives of the research, namely, to identify the factors/variables that explain tourists to choose an air transport company, expanding the Theory of Planned Behavior (TCP). (Ajzen, 1991)

In the second moment of this research, the present study employed a quantitative research approach based on an exploratory research paradigm to implement and achieve the research objectives, namely, to identify the factors/variables that explain tourists to choose an air transport company, expanding the Theory of Planned Behavior (TCP). (Ajzen, 1991)

For this, a structured questionnaire was elaborated and the data collected through closed questions, eight questions of a sociodemographic nature and six questions related to the hypotheses of this work, namely, the factors that could influence the intention to use Brazilian airlines. The questionnaire was carried out through a self-administered and online survey approach, using the *QuestionPro software* to collect data during the months of September 2024 to December 2024. The carefully designed questionnaire took an average of three minutes to complete. It was sent through a link and/or QrCode using the contact network at: *Telegran, Facebook, Instagram and Whatsapp*. (Javed, Tuÿcková & Jibril, 2020).

The sociodemographic characteristics included were: gender, age, ethnic group, educational level, marital status, employment status, family income, and number of dependents living in the same household. The questionnaire was viewed by 291 people, with 203 completed/valid answers and 12 incomplete answers. (Javed, Tuÿcková & Jibril, 2020).

The survey respondents were profiled by generation X to Z, which comprises people born from 1960 to 2009 (Zaninelli & Caldeira; 2022), as it is a profile of economically active respondents and, therefore, able to travel according to the Economically Active Population (PEA) index. (IBGE, 2024).

It was possible to verify that the dominant profile of the respondents belongs to the male gender, 58.13%, being between 35 and 44 years old, belonging to the white ethnic group, with higher education, married, having full-time work hours with a monthly income between 3 and 10 minimum wages without dependents.

Respondents' responses and opinions were measured using a *five-point* Likert scale.

The questions related to the hypotheses raised in this work emerged from the literature as well as from previous studies. Therefore, Table 3 indicates the same procedure, a summary of the hypotheses together with the operationalization and their respective literature.

Table 2

Operationalization of the hypotheses

Hypotheses	Indicator	Adapted literature
H1 The price is positively related to the intention of passengers to use Brazilian airlines.	By choosing this airline, you consider that the **price** charged was a relevant factor in your purchase decision.	Chang and Sun, 2012; Sai et al., 2012; Jung and Yoo, 2014; Ong and Tan, 2010.
H2 The quality of service is positively related to passengers' intentions to use Brazilian airlines.	When you chose this airline for your trip, the **quality** of the service provided was considered by you.	Ariffin et al., 2010; Kim and Lee, 2011; Lerrthaitrakul and Panjakajornsak, 2014.
H3 Risk aversion is negatively related to passengers' intentions to use LCCs (*Low Cost Carriers market*) in Brazil.	When choosing this airline, issues related to the **risk** of the trip, such as: damage and/or loss of luggage, delay in takeoff and/or landing, number of stopovers and boarding waiting time, air accidents, absence of on-board service, were decisive for his choice.	Hofstede, 1984; Cheng, 2010; Quintal et al., 2010.
H4 Technological effectiveness is positively related to passengers' intentions to use LCCs in Brazil.	The **technology** that this company chosen by you uses on trips, such as: websites for purchasing tickets, early check-in through apps or totems at airports, communication via SMS and/or WhatsApp about changes in schedules, gates and boarding times were considered by you.	Armitage and Conner, 1999; Conner and Armitage, 1998; Escobar-Rodríguez and Carvajal-Trujillo, 2014.
H5 The frequency is positively related to passengers' intentions to use LCCs (*Low Cost Carriers*) in Brazil.	The number of available flights and respective **frequencies** such as: available times, available airports, number of stopovers was considered by you when choosing the airline.	Mason, 2001; Liang and James, 2009; Mikuliÿ and Prebežac, 2011.
H6 Access is positively related to passengers' intentions to use LCCs (*Low Cost Carriers market*) in Brazil.	When considering the choice of airline, the question of **commuting** to the airport was for you.	Tierney and Kuby, 2008; Jung and Yoo, 2014; Abdullah and Takahashi, 2016.

Source: prepared by the author based on survey responses, 2025.

Thus, the following variables emerged from the hypotheses, as shown in the table below:

Table 3

Hypotheses versus Variables

H1	V1 Price
H2	V2 Quality
H3	V3 Risk
H4	V4 Technology
H5	V5 Frequency
H6	V6 Displacement

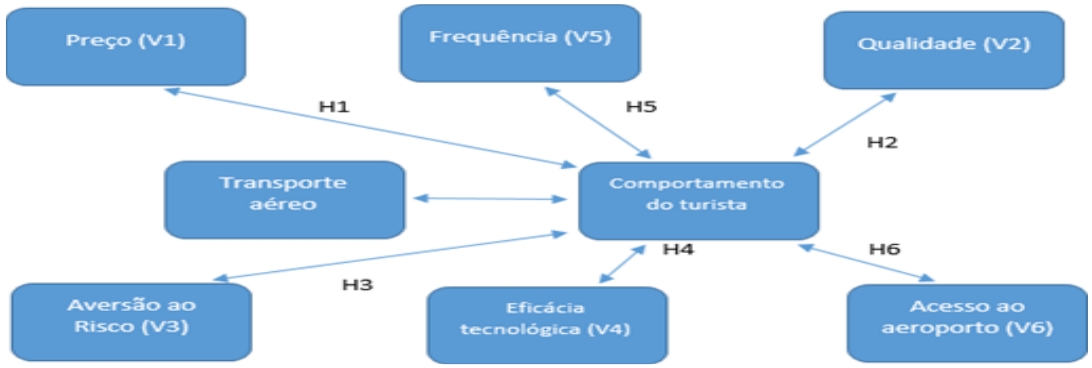
Source: prepared by the author, 2025.

4 RESULTS AND DISCUSSIONS

The study used binomial logistic regression analysis for statistical analysis and response evaluation based on the proposed conceptual model.

Figure 1

Proposed model of the extended study of the theory of planned behavior



Source: prepared by the author, 2025.

Binomial logistic regression analysis is a statistical technique used to model the relationship between a categorical dependent variable (usually binary) and one or more independent variables, which can be continuous or categorical. It estimates the probability of an event occurring, based on the independent variables. (Hair; Hult; Ringle & Sarstedt, 2016).

Thus, in this study, the was used to test the proposed research model and postulated hypotheses see table 3, namely: between the airlines Gol Linhas Aereas Inteligentes S/A and Azul Linhas Aéreas S/A which Brazilian tourist would choose taking into account the variables: price, quality, risk, technology, frequency and access (Hair; Sarstedt. & Gudergan, 2017). The number of respondents analyzed was 203 participants. The *R* 4.4.3 software was used for this analysis.

In the present study, some qualitative measures were taken. The author stated in the header section of the questionnaire that no answer was right or wrong to the questions asked. In addition, the author also assured respondents of their anonymized status regarding the information provided and proclaimed that the completion of the questionnaire could be

stopped at any time due to some inconvenience. (Javed, Tuÿcková & Jibril, 2020).

For a better understanding of the binomial logistic regression analysis, the table below shows the legend of the variables:

Table 4

Variables

V1 Price
V2 Quality
V3 Risk
V4 Technology
V5 Frequency
V6 Displacement

Source: prepared by the author, 2025.

4.1 STATISTICAL ANALYSIS

Thus, the binomial logistic regression analysis is represented below:

Figure 2

Analysis of the R software data

```
Call:
glm(formula = v12 ~ v9 + v10 + v11 + v13 + v14 + v15 + v16 +
    v17 + v18, family = binomial, data = teste)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-1.7832  -1.2098   0.7279   0.9596   1.7370

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept) -0.87496    1.13496  -0.771   0.4408
v1           0.27751    0.19275   1.440   0.1500
v2          -0.39421    0.22784  -1.730   0.0836 .
V3           2.59444    1.08878   2.383   0.0172 *
v3.1        -0.09541    0.19477  -0.490   0.6242
v4          -0.22766    0.18392  -1.238   0.2158
V5          -0.23612    0.27374  -0.863   0.3884
V5.1         0.12350    0.20802   0.594   0.5527
v5.2        -0.39471    0.21111  -1.870   0.0615 .
v6           0.07349    0.17633   0.417   0.6768

---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 271.36  on 202  degrees of freedom
Residual deviance: 250.34  on 193  degrees of freedom
AIC: 270.34

Number of Fisher Scoring iterations: 5
```

Source: prepared by the author, 2025.

It is possible to notice that the values of Null deviance and residual deviance are close to each other, which characterizes it as an accepted model, since the closer these numbers

are, the better the model presented. Also the AIC value, that is, 270.34, denotes that the model is acceptable because, when comparing the models, it has a small value, which guarantees its higher quality and simplicity.

As can be seen in figure 2, in the study between the companies Gol Linhas Aereas Inteligentes S/A and Azul Linhas Aéreas S/A, the choice of the sample studied would be by the company Azul Linhas Aéreas S/A, since in the binomial analysis it is represented by 1 and Gol Linhas Aereas Inteligentes S/A represented by 0. The calculation below denotes this preference:

$$\Pi = \frac{e^{-0.87+2.59-0.24+0.12+0.27-0.39-0.095-0.23-0.40+0.073}}{1+e^{-0.87+2.59-0.24+0.12+0.27-0.39-0.095-0.23-0.40+0.0.073}} = 0.700 \quad (1)$$

That is, the value 0.70 is closer to 1, therefore, Azul Linhas Aéreas S/A.

Also as shown in the model, the independent variables that most explain the choice of Brazilian tourists to choose Azul Linhas Aéreas S/A are: V3 Risk, with 0.0172, V2 Quality, with 0.0836 and V5 Frequency with 0.3884.

That is, the hypotheses raised in this work H2 When you chose this airline for your trip, the quality of the service provided was considered by you to have been accepted, as well as H3: When choosing this airline, issues related to the risk of the trip such as: breakdown and/or loss of luggage, delay in takeoff and/or landing, number of stopovers and boarding waiting time, air accidents, absence of on-board service, were decisive for your choice and finally, H5: The number of flights available and respective frequencies such as: available times, available airports, number of stopovers was considered by you when choosing the airline.

It is also relevant to highlight that, according to the sociodemographic variables analyzed, this preference is for consumers with the dominant profile of male relatives, 58.13%, between 35 and 44 years old, belonging to the white ethnic group, with higher education, married, working full-time hours with a monthly income between 3 and 10 minimum wages without dependents.

5 FINAL CONSIDERATIONS

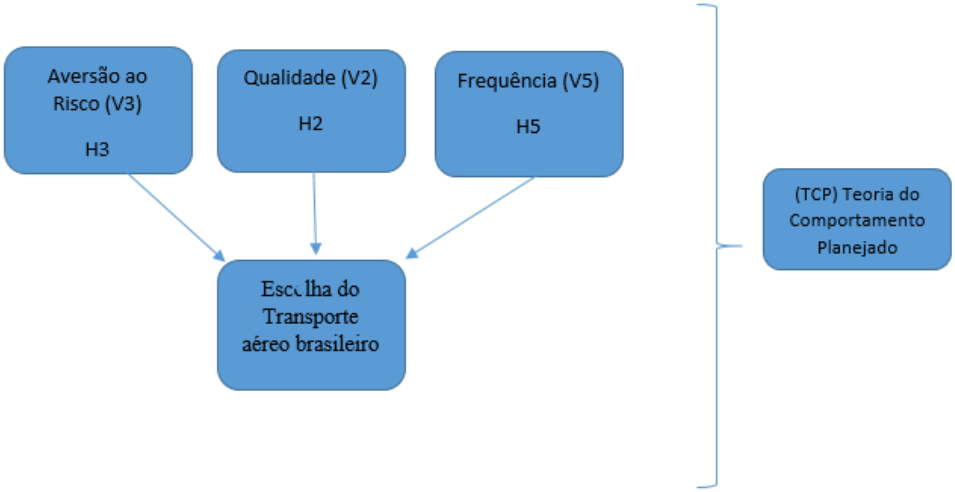
This study aimed to expand the theory of planned behavior with a focus on Brazilian low-cost airlines. Having in its specific objective to identify the factors/variables that explain tourists to choose an air transport company, expanding the Theory of Planned Behavior (TCP). To do so, he answered the research problem: Does the Theory of Planned Behavior (TCP) explain the choice of air transport by Brazilian tourists?

The findings of this research showed that the Theory of Planned Behavior (TCP) when applied to the understanding of Brazilian low-cost airlines has as explanation variables: risk, quality and frequency.

As shown in the figure below:

Figure 3

Study design



Source: prepared by the author, 2025.

Thus, this study had its hypotheses:

H2 When you chose this airline for your trip, the quality of the service provided was considered by you to have been accepted, as well as H3: When choosing this airline, issues related to the risk of the trip such as: damage and/or loss of luggage, delay in takeoff and/or landing, number of stopovers and boarding waiting time, air accidents, absence of on-board service, were decisive for your choice and finally, H5: The number of flights available and respective frequencies such as: available times, available airports, number of stopovers was considered by you when choosing the airline accepted in this study.

As limitations of this research, the sociodemographic variable of generation is especially understood, namely: generation X to Z, which comprises people born from the period from 1960 to 2009, perhaps using a different generation cut, results in answers, variables and conclusions that are also different in relation to the variables that justify the choice of Brazilian airlines by tourists.

Also analyze the criteria that led the respondents to choose the company Latam *Airlines Group* S.A. since it is not a Brazilian company, but among the respondents of this survey 38.92% pointed out this company as their choice of travel.

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