Airline fares change constantly, rewarding those who book early, search smarter, or simply get lucky. But how do passengers actually perceive these price differences—and when do they begin to feel unfair?.

This book shifts the spotlight from airline algorithms to passenger experience. Drawing on original empirical research from Indian domestic air travellers, it explores awareness, planning behaviour, perceived fairness, and post-purchase regret in a dynamically priced aviation market. The study reveals why passengers tolerate volatile fares, how they adapt to price uncertainty, and what shapes acceptance of airline pricing practices.

Developed as the second independent research monograph from a Research study, this volume stands on its own by examining airline pricing through the lens of consumer attitudes rather than price mechanics.

Concise, data-driven, and deeply relevant, this book offers fresh insight for researchers, policymakers, and airline professionals seeking to understand not just how prices move—but how passengers live with them.

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Flying Prices:
Price Dynamics and Passenger Attitudes in Indian Civil Aviation

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Flying Prices:
Price Dynamics and Passenger Attitudes in Indian Civil Aviation

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Preface

Air travel has become an everyday reality for millions in India, yet the price paid for the same seat on the same flight can differ dramatically from one passenger to another. These variations—often noticed only after purchase—raise quiet but persistent questions in the minds of travellers: *Why did I pay more? Was it fair? Could I have planned better?* While airlines view such price movements as rational outcomes of revenue management, passengers experience them as lived economic and psychological events. This research monograph is rooted in that passenger experience.

This book is the second of two independent research monographs developed from a single doctoral research work on airline price dynamics in the Indian civil aviation market. While both monographs originate from the same PhD thesis, each has been carefully re-conceptualised to stand on its own, addressing a distinct but complementary dimension of the larger inquiry. The first monograph examined the price dynamics and structural behaviour of airline fares from an industry and market perspective. The present volume shifts the lens decisively towards the passenger, focusing on attitudes, awareness, behavioural responses, and perceptions of fairness associated with dynamic airline pricing.

Dynamic pricing has played a pivotal role in the rapid expansion of India's domestic aviation sector, particularly following liberalisation and the rise of low-cost carriers. Yet, despite frequent public discourse on high airfares, empirical research on how passengers actually perceive and respond to such pricing remains limited. This monograph seeks to bridge that gap by systematically analysing passenger attitudes towards airline price dynamics, the behavioural and informational factors shaping those attitudes, and the demographic variations underlying them.

Based on primary data collected from domestic air travellers and analysed using robust statistical and structural modelling techniques,

the study offers empirical insights into how passengers negotiate price uncertainty, plan purchases, and reconcile post-purchase price differences. By foregrounding the passenger perspective, this work contributes to a more balanced understanding of airline pricing—one that extends beyond revenue optimisation to include consumer psychology, perceived fairness, and acceptance.

As an independent research contribution, this monograph is intended for researchers, policymakers, airline practitioners, and students of aviation economics, marketing, and consumer behaviour. At the same time, it remains firmly connected to its doctoral origins, reflecting the broader objective of translating rigorous academic research into accessible and focused scholarly works.

Abstract

Dynamic pricing has become a dominant pricing strategy in the civil aviation industry, enabling airlines to vary ticket prices based on demand conditions and the timing of purchase. While this practice is economically justified from a revenue management perspective, it raises important behavioural and ethical questions, particularly when identical services are sold at widely different prices. Despite frequent public criticism of discriminatory pricing in other sectors, airline dynamic pricing in India has largely been accepted by passengers, with minimal resistance or regulatory intervention. This paradox forms the central concern of the present study.

The study examines airline passengers' attitudes towards dynamic pricing in the Indian domestic civil aviation market and identifies the determinants influencing these attitudes. Using primary data collected through a structured questionnaire administered to domestic air travellers, the study analyses passenger awareness of price dynamics, pre-purchase planning behaviour, post-purchase dissonance, and both positive and negative attitudes towards airline price dynamics. A total of 409 valid responses were analysed using descriptive statistics, non-parametric tests, and Structural Equation Modelling through Partial Least Squares (PLS) to develop, test, and validate a comprehensive measurement and structural model.

The findings reveal that passenger attitudes towards dynamic pricing are shaped by multiple behavioural and informational factors, including hedonic motivation, internet browsing expertise, price-saving orientation, word-of-mouth information, and service quality perception. The study also finds significant demographic differences in attitudes and their determinants based on variables such as travel frequency, flying experience, and purpose of travel. While passengers

acknowledge the benefits of dynamic pricing—particularly the opportunity for lower fares through advance planning—they also exhibit concerns related to fairness and transparency.

The study contributes to the limited Indian literature on consumer perceptions of airline pricing by offering empirical insights into passenger behaviour in a dynamically priced environment. The findings have important implications for airline pricing strategies, customer communication practices, and policy discussions on fare transparency in India's rapidly expanding aviation sector.

Chapter 1
Introduction to Passenger Behaviour & Pricing

Chapter 1

1.1 Introduction

Charging different prices for the same product or service from different customers has long been used by merchants as a strategy for revenue maximisation. While economically justifiable from a business perspective, such practices have often raised ethical concerns among the public, especially when price differences are not easily understandable or socially justified. Concessions given to priority segments such as students, senior citizens, soldiers, and the physically challenged are generally accepted by society as commendable practices aimed at social welfare. In contrast, any form of discrimination, including price discrimination, based on gender, race, colour, caste, or religion is considered illegal in many countries, including India, unless it aims to uplift weaker sections. Article 15 of the Constitution of India explicitly prohibits discrimination on grounds of religion, race, caste, sex, or place of birth, except in cases where it is intended for the advancement of socially and educationally backward classes (The Constitution of India, 2020).

In many industries, governments intervene to prevent exploitative pricing practices through mechanisms such as maximum retail price (MRP), price ceilings, floor pricing, and other regulatory controls. Traditionally, the travel sector has been perceived as one where fares are regulated. However, certain segments, such as interstate bus travel, often witness sharp price hikes during festive seasons, drawing public criticism and media attention.

In the civil aviation sector, dynamic pricing—where fares fluctuate depending on the time of purchase and anticipated demand—has become a common practice worldwide, including in India. For

instance, for a one-hour flight from Kochi to Bangalore in economy class, ticket prices have ranged from C899/- (Airasia, 2017a) to C10,804/- (Airasia, 2017b) in the same airline, without any difference in service quality. In some cases, the same route has been priced as high as C15,600/- (Spice Jet, 2016). This price difference is not based on passenger characteristics but purely on the timing of purchase (Aguirre, 2012). Airline pricing strategies rely heavily on anticipated demand (Borenstein, 1985), where early booking does not always guarantee the lowest price, but last-minute purchases are almost always costlier.

Such price fluctuations may naturally invite ethical concerns from passengers, as the same service at the same time of travel is sold at vastly different prices. Interestingly, in India, widespread public protests against this practice have been rare, with only occasional media criticism, such as during the COVID-19 pandemic. Moreover, dynamic pricing is now an accepted industry practice, even adopted by Indian Railways on selected trains (IRCTC, 2022).

This situation raises an important question: How do passengers perceive and react to dynamic pricing in air travel? Do they consider it fair, exploitative, or simply a part of modern travel? What factors shape their attitudes—awareness, experience, pre-purchase planning, or perceived benefits? These questions form the foundation of this study, which seeks to understand airline passengers' attitudes towards dynamic pricing in India and the determinants that influence their acceptance or resistance to this pricing strategy.

1.2 Significance of the Study

Civil aviation is one of the most crucial sectors in any modern economy, enabling faster connectivity and supporting economic growth. For a long time, air travel in India was considered a luxury, affordable only to a privileged section of society. However, the introduction of the Low-Cost Carrier (LCC) business model significantly expanded access to air travel, resulting in unprecedented growth rates. Domestic passenger traffic grew by 24%, 30%, and 42% in 2005, 2006, and 2007, respectively (DGCA, 2011). The market share of LCCs increased from just 5% in 2004 to 63% in 2009 (NTDPC, 2013). Between 2014 and 2019, India experienced the fastest growth in air connectivity (89%) among the top 20 most connected countries globally (IATA, 2019).

The emergence of the LCC business model in India was part of a global trend that had earlier transformed aviation markets in the United States and Europe. LCCs adopted internet-based, dynamic pricing strategies, including advance purchase discounts and promotional fares, to optimise revenue and influence passenger purchase decisions (Media, 2015; Malighetti et al., 2009; Hernandez et al., 2017). In India, Air Deccan pioneered the LCC model in 2003 (Chakravarty, 2011), and within five years, private carriers accounted for more than 80% of the domestic market (DGCA, 2011). Dynamic pricing, a key feature of LCC revenue management, adjusts ticket prices based on anticipated demand and the timing of booking (Burger & Fuchs, 2005; Ayadi et al., 2017; Karthik & Mitra, 2016). Given the perishable nature of airline seats and fluctuating demand—especially during festivals, weekends, and holidays—

price changes have become a common feature of air travel (Beria & Laurino, 2016; Feldmann, 2008).

While dynamic pricing has been widely studied in Europe, Australia, the United States, and some Asian markets like China, Korea, and Japan, the Indian civil aviation market has attracted comparatively little research. Most existing studies in India focus on pricing dynamics and revenue management from the perspective of airlines rather than from the viewpoint of passengers. Yet, dynamic pricing has a direct psychological and behavioural impact on passengers, influencing their perceptions of fairness, their booking strategies, and even their trust in airline companies.

Understanding passenger attitudes towards dynamic pricing is thus crucial for multiple stakeholders. For airlines, it helps design fair and transparent pricing policies that improve customer satisfaction and loyalty. For policymakers, it provides insights into whether such pricing practices are perceived as exploitative or acceptable. For researchers, it fills a significant gap in the literature on consumer behaviour in the context of dynamic pricing in India's fast-growing aviation sector. The present study seeks to address this gap by examining passenger attitudes towards airline dynamic pricing, their determinants, and their implications for both industry practice and policy formulation.

1.3 Statement of the Problem

The Indian civil aviation industry has shown consistent growth since its early beginnings in 1911 (Chakravarty, 2011). While the nationalisation of civil aviation in 1953 and liberalisation policies of the 1990s had only a marginal effect on this growth trajectory, the introduction of Low-Cost Carriers (LCCs) in 2003 triggered a

dramatic increase in passenger traffic. By 2018, Indian airlines carried 183.90 million passengers, with domestic routes accounting for more than 67% of the total (DGCA, 2019).

Dynamic pricing has become a widely accepted pricing model in both the Indian and global civil aviation markets, enabling airlines to adjust fares according to demand and booking time. However, its adoption has not been entirely free from controversy. In India, allegations of excessive pricing during festive or holiday seasons and labour strikes were reported in 2010. Similarly, accusations of below-cost pricing by a full-service carrier in 2011 raised concerns about predatory pricing (NTDPC, 2012). In response, the National Transport Development Policy Committee recommended regulatory oversight to ensure transparency and to prevent discriminatory or predatory pricing practices (NTDPC, 2013).

Selling the same service at different prices to different customers—a form of first-degree price discrimination—has historically attracted public criticism and government intervention. While second-degree price discrimination (e.g., quantity discounts, quality differentiation) and third-degree price discrimination (e.g., pricing based on identifiable customer segments) have been socially accepted in India, dynamic pricing in civil aviation—where fare differences are purely based on the timing of purchase—has largely escaped public backlash.

This situation raises important behavioural and ethical questions. Why do passengers, who generally oppose discriminatory pricing in other sectors, appear to accept or tolerate dynamic pricing in aviation? Are passengers aware of how dynamic pricing works, and how does it influence their purchase planning and post-purchase

experience? Does this acceptance indicate perceived fairness, resignation, or a belief in the potential benefits of dynamic pricing (e.g., lower fares for early bookings)?

Despite dynamic pricing's economic importance and its role in fuelling the rapid growth of the LCC segment (Fu et al., 2010), little is known about how passengers perceive such pricing strategies in India. Most existing research focuses on revenue management and market dynamics, largely ignoring consumer attitudes and behavioural responses.

Hence, the problem addressed in this study is: to examine airline passengers' attitudes towards dynamic pricing in India, to identify the factors influencing these attitudes, and to explore whether such pricing is perceived as fair, acceptable, or exploitative. This situation invokes curiosity and raises the following questions:

1. Are the customers aware of price discrimination in the form of dynamic pricing?
2. What are their attitudes towards airline price dynamics?
3. What are the factors leading to attitudes of passengers towards this price dynamics?

These questions of interest need systematic processing and analysis to unearth the underlying facts. Therefore, the following research objectives have been formulated to discover the underlying truth of the above research questions.

1.4 Objectives of the Study

he primary objective of this study is to conduct an in-depth investigation into airline passengers' attitudes towards dynamic

pricing in the Indian civil aviation sector. The study seeks to understand how passengers perceive and respond to price variations for the same service, influenced by factors such as booking time and demand fluctuations. The following are the specific objectives under which the study was conducted:

1. To analyse the determinants of attitudes of airline passengers towards dynamic pricing.
2. To analyse the attitudes of airline passengers towards dynamic pricing.
3. To develop, test, and validate a suitable model for measuring the attitudes of passengers towards dynamic pricing.
4. To examine the demographic differences in the attitudes and its determinants of the airline passengers towards dynamic pricing.

1.5 Hypotheses

The following hypotheses are formulated based on the literature review and the research objectives.

$H_{1\ 1}$ – $H_{1\ 21}$ Hedonic motivation, internet browsing expertise, word of mouth information, information from airline advertisements, e-payment expertise, price saving orientation, and service quality perception, significantly influence pre-purchase planning behaviour, post-purchase dissonance behaviour, and awareness of airline price dynamics.

$H_{1\,22} - H_{1\,29}$ Awareness of Price Dynamics, Pre-Purchase Planning Behaviour, and Post Purchase Dissonance Behaviour significantly influences the Pre-Purchase Planning Behaviour, Post-Purchase Dissonance Behaviour, Negative Attitude towards Airline Price Dynamics and Positive Attitude towards Airline Price Dynamics.

$H_{0\,1} - H_{0\,7}$ The determinants of attitude towards airline price dynamics do not differ significantly based on gender, nationality, region, travel frequency, occupation, flying experience, and travel purpose of the respondents.

$H_{0\,8} - H_{0\,11}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on gender, nationality, travel frequency, region, occupation, flying experience, brand preference, and travel purpose of the respondents.

1.6 Scope of the Study

This study is confined to India's domestic civil aviation market, specifically focusing on scheduled passenger flights. While the overall growth pattern of India's air passenger traffic is briefly compared with a few other selected countries to understand market context, the emphasis remains on domestic passenger travel rather than international routes. Moreover, the 'domestic civil aviation' in this research does not cover chartered flights and scheduled and non-scheduled helicopter services. The theoretical aspects covered in the study are dynamic pricing and the attitudes of passengers towards dynamic pricing.

1.7 Methodology of the Study

The study deals with the customer perception of airline price dynamics. For this purpose, the study handles primary data. The entire methodology of the research is discussed below.

1.7.1 Nature and Source of Data

The cross-section data collected through structured questionnaire from the air travellers, using Google Form.

1.7.2 Population of the Study

The study population comprises 123 million passengers travelling through these domestic routes (DGCA, 2019).

1.7.3 Sample Selection for Collection of Price

There were 16 competing airline companies operating in the domestic aviation market. The researcher has conducted a pilot study to collect data on the Delhi-Kochi Air India flight. Unfortunately, due to the Covid pandemic, the final data was collected using online platforms. The structured close-ended questionnaire, using Google Form, had been sent on social media, targeting those using flight modes of travel to fill it. There was also a request to forward it to their contacts using flight travel. Options were given to eliminate those not using the flight mode of travel. This questionnaire was also submitted on various airlines' Facebook customer forums, requesting the travellers to fill it out. The researcher could collect 510 responses. Out of these, 409 samples have been found useful.

1.7.4.1 Sample Size

Robert V. Krejcie and Daryle W. Morgan published an article showing a table for determining sample size from a given

population, popularly known as 'Morgan's Table' (Krejcie & Morgan, 1970). As per the web page of 'Google Scholar', this table has 15 versions and has been cited by nearly 14,500 scholars (Scholar, 2021). In addition, research-advisor.com published the table (Morgan & Krejcie, 2006), which is given in the annexure of this report.

This table is based on the widely used formula for determining the sample size published by the National Education Association, US, in 1960. This formula is known as the 'Krejcie and Morgan' formula (Krejcie & Morgan, 1970). The formula is:

$$\text{Sample Size} = X^2NP(1 - P) \div d^2(N - 1) + X^2P(1 - P)$$

Where,

X^2 represents the table value of chi-square at a 99% confidence level, N represents the population size, P represents the population proportion, and d represents the proportionate degree of accuracy.

As per this 'Morgan's Table', 384 samples are sufficient for a population of 300 million to estimate a 95% confidence level within a 5% margin of error. The researcher collected 409 samples for the analysis.

1.7.6 Period of Study

Primary data from airline passengers were collected in July and August 2020.

1.7.7 Tools of Data Analysis

Descriptive statistics, Mann- Whitney U Test, and Kruskal- Wallis Test were used to analyse data collected through questionnaire.

Using Partial Least Squares (PLS), the researcher created Measurement and Structural model, which was tested for reliability and validity.

1.8 Operational Definitions

Specific terms used in this research are defined to ensure smooth reading. The terminologies particular to this industry are also explained below.

1. **Price Discrimination:** When the tickets of the same flight are sold at different prices to different consumers, without any change in the services provided, it is called price discrimination.
2. **Dynamic Pricing:** Dynamic pricing is a strategy where the seller changes prices based on seat availability, expected demand, supply, and competition. This strategy creates price dispersion and leads to price discrimination. Price dynamics is used as a synonym of dynamic pricing in this research.
3. **Price Dispersion:** Since the airline price may vary from time to time due to dynamic pricing, there will be variations in ticket prices paid by different passengers on a flight. This variation in ticket prices on a day or various days of various flights on the route is termed price dispersion.
4. **LCC:** Low-Cost Carriers are airline business model which offers tickets at the lowest price by minimising operation costs. The products offered by LCCs are economy class and Premium economy class.
5. **FSC**: Full-Service Carriers are those airlines offering only business class service to their customers. They are a traditional airline business model.

6. **Fleet**: Each flight of an airline company on a route is termed the fleet.
7. **Leisure Travellers:** Passengers who plan their travel well in advance to choose a low-fare air ticket are termed 'Leisure travellers'. They are a price-sensitive traveller who books in advance or changes their travel plan to ensure a low-priced ticket
8. **Business Travellers:** Passengers who plan their travel quickly are termed 'business travellers'. They are ready to pay more for their tickets because of an emergency.
9. **Domestic Civil Aviation:** The segment of civil aviation in India consisting of:
    a. **Domestic Airports**: Various airports (including international airports and civil enclaves of the defence airports) in India serving scheduled domestic flights are termed domestic airport.
    b. **Scheduled Domestic Flight**: A commercial flight operating with a pre-fixed schedule, where the departure and arrival occur in the same country, is termed a scheduled domestic flight.
    c. **Airline Passengers**: Passengers travelling by a scheduled flight.
10. **Civil Aviation:** Civil aviation industry and airline industry are used as synonyms in this research.

1.9 Limitations of the Study

Online platforms were used to collect data through questionnaires. However, this might not have covered the opinion of travellers not using these platforms.

1.10 Scheme of Presentation

The study is presented in nine chapters. The scheme and contents of each of the chapters are briefly described here.

Chapter 1: Introduction to Passenger Behaviour & Pricing

This chapter gives a brief introduction to the study, including the significance of the study, research objectives, research hypotheses, methodology of the study, operational definitions and limitations of the study.

Chapter 2: Literature Review and Theoretical Frame Work

Previous studies conducted by researchers on airline price dynamics of various continents are discussed in this chapter to form a theoretical background to this concept. The chapter also provides insight into the research gap identified.

Chapter 3: Indian Airline Industry and Price Dynamics

Price dynamics is the globally accepted pricing method of the civil aviation industry. This chapter intends to provide an in-depth understanding of the industry where price dynamics are practised.

Chapter 4: Development and Testing of Measurement Model

The measurement model using Smart PLS is explained in this chapter, showing the determinants of airline passengers' attitudes towards price dynamics.

Chapter 5: Attitudes towards Airline Price Dynamics

This chapter deals with developing a structural model from the measurement model discussed in chapter six. The chapter analyses

the relationship between the constructs and their predictive capabilities.

Chapter 6: Attitudes of Passengers on Airline Price Dynamics

This chapter evaluates the demographic differences with the antecedents of attitudes towards airline price dynamics. In addition, the chapter evaluates demographic factors' differences in attitudes towards airline price dynamics.

Chapter 7: Summary, Findings, and Suggestions

The study findings based on the objectives are given in this chapter. The chapter also concludes the research and points out areas for further investigation.

Chapter 2
Literature Review and Theoretical Frame Work

Chapter 2

2.1 Introduction

The airline business is inherently complex, driven by the perishable nature of its service and the highly elastic nature of demand. Airline seats, once a flight departs, cannot be stored or reused, making pricing decisions critical for maximising revenue. To address these challenges, civil aviation worldwide adopts time-based pricing, a form of dynamic pricing that adjusts fares based on booking time and anticipated demand. This approach often implicitly segments passengers into categories such as leisure travellers, who typically book early, and business travellers, who often purchase tickets closer to the departure date (Vulcano et al., 2002). While such strategies are well-established and globally accepted from a revenue management perspective, their impact on passenger perceptions of fairness and acceptability remains an important area of investigation.

Passengers who plan their journeys well in advance and purchase the lowest fare tickets are generally considered price-sensitive leisure travellers. In contrast, passengers who book closer to the departure date, often opting for flexible or higher fare categories, are typically classified as business travellers, who are relatively less sensitive to price changes. Such segmentation forms the foundation of dynamic pricing, leading to significant price dispersion among passengers travelling on the same route and in the same service class. While this strategy is designed to maximise airline revenue, it also raises important behavioural and ethical questions: How do passengers perceive these pricing differences? Do they consider them fair and acceptable, or do they experience frustration and a sense of exploitation?

Chapter 2

This chapter reviews existing literature on airline dynamic pricing and passenger behaviour, establishing the theoretical foundation for exploring passenger attitudes towards dynamic pricing in the Indian domestic aviation market.

2.3 Price Dispersion in Airline Industry

> "There is an incentive to engage in price discrimination whenever a good is sold at a price in excess of its marginal cost" (Varian, 1989).

Consumers value products differently, enabling price discrimination. When prices exceed marginal cost, firms exploit willingness to pay, especially under monopoly and oligopoly (Varian, 1989).

Airline ticket price differences mainly arise from price discrimination. Ian Gale noted that business travellers often pay more than twice the fare of advance-purchase tickets. This difference is not due to higher service costs, but because airlines price tickets based on passenger type and booking behaviour (Gale, 1993).

Price dispersion exists in the US airline industry on an unmatched scale (Ross L B, 1994). Borenstein and Rose found large US airline price dispersion, with 36% variation; competition reduces dispersion, driven by price discrimination and cost differences. (Borenstein & Rose, 1994).

Global aviation features extreme price discrimination, fluctuating demand, fixed perishable capacity, complex planning, and low marginal seat costs during excess capacity (Lyle, 1995).

Through his predictive model, James D Dana proves that yield management based on price dispersion would also benefit business

travellers. For airline companies, uniform pricing is inefficient where the demand is uncertain, and equilibrium price dispersion helps them to shift demand (Dana, 1999).

Verlinda found that monopoly markets favour a wider fare distribution, whereas duopoly and competitive markets exhibit a tighter fare distribution. He argues that the dispersion of airline fares results from airlines' efforts to practice second-degree price discrimination (Verlinda, 2005).

Gillen found Canadian airlines practiced strong price discrimination; booking timing and route competition affected fares, with legacy airlines charging higher than LCCs (Gillen & Hazledine, 2006). The term Legacy is used as a synonym for Full Service Carriers (FSC).

McAfee and Velde consider price dispersion as static randomization by firms in pricing, where each customer pays an identical price. Marginal cost and the time of purchase influenced dynamic price discrimination in the US Market (McAfee & Te Velde, 2007).

Dynamic price dispersion is driven by demand factors and LCC presence; population, income, business travel matter, competition intensity less, effects grow near departure (Mantin & Koo, 2009).

Roose studied the dramatic variation in airfares offered in the Australian airline market. Dramatic variation was found across fare classes for a given booking day and between booking days. The week before travel witnessed a steep rise in the lowest available fares on a flight. Price variation by booking day was evident for economy fares only (Roos et al., 2010).

Airline price differences arise from consumer diversity, limited non-storable seats, and demand changes, causing higher prices in peak

demand and stable pricing otherwise (Escobari, 2012). In other words, there are chances of high prices due to high demand but a rare chance for low prices due to lower demand. Therefore, instead of further reduction, seats will be left vacant.

LCCs and network carriers use this pricing strategy more because the airlines primarily compete on their base ticket fares, and passengers generally compare these fares when deciding which flight to purchase (Wit & Zuidberg, 2012).

Kang found passenger heterogeneity drives airline price dynamics; capacity, time, and competition matter less, as homogeneous consumers reduce price dispersion by 72% (Kang Jian, 2012).

Peak-load pricing shifts price-sensitive passengers to off-peak times, reducing congestion, improving efficiency, lowering costs, and benefiting travellers, employees, environment, and airlines (Friedman & Gerstein, 2014).

Studies of Taiwan-China showed that the time of the day, hot season and vacations positively affect prices and advance booking. Morning flights in the hot season are booked in advance. Fare and seat inventory control are varied for different flights (Chiou & Liu, 2016).

Studies in India show a significant difference in mean fares offered by airlines and no significant difference in mean fares when passenger book tickets one week in advance (Thirunavukkarasu & Nedunchezian, 2016). However, Mathur observed that morning flights, weekend flights and festival flights are more expensive than other flights in India (Mathur, 2020).

2.4 Sources of Airline Price Dispersion

The literature shows that airline revenue maximisation strategies are the main reason for price differences in ticket fares. Factors like different business models, product variations, and cost differences contribute to price dispersion in any market. In airlines, unpredictable demand and limited, perishable seat supply push companies to use revenue-based pricing rather than cost-based pricing. Because passengers have different travel needs and price sensitivities, airlines use price discrimination methods to take advantage of this diversity. Technology further supports these practices, leading to constant changes in ticket prices, known as price dynamics.

2.4.1 Business Models

The aviation industry mainly operates under four business models: Full-Service Carriers (FSCs), Low-Cost Carriers (LCCs), Ultra-Low-Cost Carriers (ULCCs), and chartered flights. Passengers see these segments differently, which affects their demand. Studies show that passengers choose FSCs mainly based on their perception of service quality, whereas this factor has much less impact on their decision to use LCCs. Moreover, LCCs weakened the price discrimination ability of the FSCs (Chiou & Chen, 2010). Legacy carriers have complex products, while LCCs have simple products and pricing strategies (Gillen & Gados, 2009).

The introduction of the $10 “night fare” in 1971 between Houston and Dallas by Texas-based Southwest Airlines (S Airlines, 2020) was a landmark event that reshaped the airline industry. This strategy inspired many other airlines and successfully attracted more passengers, expanding the market. The U.S. DoT report (Bennett &

Craun, 1993) and Richards (1996) noted that Southwest's low-cost model rapidly increased traffic volume while lowering fares.

In Europe, the arrival of LCCs attracted a significant share of business travellers, especially short-haul travellers who were more price sensitive (Mason, 2000). Similarly, in the U.S., the entry of a leading LCC increased passenger traffic and lowered average airfares (Vowles, 2001). Full-Service Carriers (FSCs) typically provide comfortable seating, free meals, baggage transfer, loyalty programs, and other services. In contrast, LCCs focus on no-frills services—no baggage transfer, limited seat comfort, pay-for-food options, use of secondary airports, no special services, direct distribution, and no loyalty programs (Graf, 2005). A survey at Jammu Airport confirmed that FSCs emphasise service quality while LCCs focus on low prices (Nagar, 2013).

The coexistence of FSCs and LCCs has contributed to price stability and lower price dispersion in the European market (Gillen & Morrison, 2003). The British airline market operates with three main models—traditional, low-cost, and charter airlines—that contribute significantly to airport revenues (Papatheodorou & Lei, 2006). Mason and Morrison (2008) argued that these business models explain differences in airline profitability.

Airfares show stable volatility until about two weeks before departure, after which price volatility increases sharply. Business model type strongly affects these price fluctuations (Gillen & Mantin, 2009). In India, the entry of LCCs introduced multiple pricing schemes such as apex fares, internet auctions, special discounts, and last-day fares (Dasgupta et al., 2009).

On oligopoly routes in Europe, the presence of LCCs significantly lowered fares (Fageda & Ferna, 2009). Similarly, in the U.S., LCC growth at airports reduced average fares and boosted passenger volumes (Abda et al., 2012). In Europe, Mason showed that mergers between similar business models improve profitability (Lenartowicz et al., 2013). Daft and Albers (2013) argued that an airline's survival depends on differentiating between high-priced full-service models and low-cost models, warning that deviating from this focus could threaten an airline's existence.

Globally, LCC penetration grew by 16.3% in 2013, with LCCs accounting for 57.7% of seats in South East Asia and 58.4% in South Asia (Pearson et al., 2015). When FSCs and LCCs compete in the same market, price dispersion increases (Dutta & Santra, 2017).

Corbo (2016) observed the emergence of Ultra-Low-Cost Carriers (ULCCs) in Europe and the U.S., which charge separately for nearly all travel services beyond the basic ticket. Bachwich and Wittman found that this model further lowered airfares in the U.S. market, although ULCCs have yet to attract wide scholarly attention (Bachwich & Wittman, 2017).

2.4.2 Product Differentiation by Airlines

Airlines use product differentiation and value-added services to segment customers and create price differences. Features like extra legroom, preferred window or aisle seats, and front-row seating are sold at additional charges, leading to price dispersion. Eric et al. found that product differentiation was a major cause of price dispersion in the U.S. airline market and noted that online travel agents contributed to this, with identical travel requests showing up to 28% variation in ticket prices (Eric et al., 2002).

Gillen and William identified two main aspects of airline product differentiation: horizontal differentiation, which occurs among airline travel products themselves, and vertical bundled integration, which links airlines and airports. Full-Service Carriers (FSCs) and Low-Cost Carriers (LCCs) differ in services such as online booking, check-in facilities, priority boarding, lounges, seat selection, and in-flight services. LCCs typically adopt simplified product and delivery processes as part of their strategy (Gillen & Morrison, 2003).

Lazarev highlighted that product differentiation also helps distinguish between business and leisure travellers. For example, some U.S. airlines offer high-priced tickets with no cancellation fees, appealing to business travellers who are less price-sensitive but prefer flexibility (Lazarev, 2013).

2.4.3 Demand and Supply

The airline industry faces unpredictable demand influenced by season, departure date and time, weekends, holidays, and characteristics of destination airports (hubs, spokes, and size). Demand also follows the traditional demand and price theory.

Goetz found that airline demand in the 50 largest U.S. metropolitan areas correlated with per capita income (Goetz, 1992). John A MacDonald noted that price dispersion can benefit society but may fall as uncertainty increases and also reduces when more LCC flights are available LCCs (A. M. John, 2007). IATA studies showed that demand elasticity for an individual airline is higher than for the overall market (Mark & Pearce, 2008).

Stochastic peak-load pricing exists in the U.S. airline industry, meaning airlines charge higher fares when they expect demand to

exceed capacity (Urday, 2008). In Europe, last-minute discounts are used to manage uncertain business travel demand (Koenigsberg et al., 2008). Prices generally fall when more seats are available (Malighetti et al., 2009), while limited remaining seats increase fares—each extra sold seat increases fares by about 3.11% (Alderighi et al., 2015). EasyJet's data showed larger quantity discounts when more seats were available (Cattaneo et al., 2016).

Airlines also respond to competitors' prices and load factors. In the U.S., fares rose when rival seats were sold out, regardless of days left before departure (Clark & Vincent, 2012). Low fares by LCCs increased overall traffic, as seen in Malta (Graham & Dennis, 2010). Nearby airport fares also influence demand; lower fares at local airports increased passenger volumes (Q. Fu & Kim, 2016).

Srinidhi (2010) observed that dynamic pricing does not always increase profits since higher prices can reduce demand, and exchange rate fluctuations also affect demand. Macroeconomic variables such as GDP and investment strongly influence airline demand (Srinidhi & Manrai, 2014).

2.4.3.1 Seasonal and Cyclical Effects

Leisure travellers, who are price-sensitive and have flexible travel schedules, show strong seasonal patterns, especially during holidays and festivals. LCCs use discounts to attract these passengers, including those visiting friends and relatives (Papatheodorou & Lei, 2006).

Traditional carriers adopt dual pricing strategies, adjusting fares more during low seasons. For instance, London charter flight prices reacted to competitors' prices only during low seasons (Garrigos et

al., 2010). The cyclical nature of air travel demand was evident during the 2001 recession and later crises, where traffic growth showed strong correlation with GDP (Hatty & Hollmeier, 2003).

Events like the 9/11 attacks caused a sharp temporary drop (30%) and an ongoing demand shock of about 7.4%. High fuel prices in 2008 and global recession caused $5.8 billion in airline losses and several bankruptcies (Ito & Lee, 2005). Franke and John (2011) distinguished between short-term cyclical shocks and long-term trends, noting that both influence pricing. Cornia et al. (2012) showed that price dispersion is highly pro-cyclical.

Seasonality also affects airline pricing strategies, such as peak-hour and high-season surcharges in London (Narangajavana et al., 2014). Tesfay (2016) found similar seasonal pricing patterns aimed at stabilising passenger load factors. Fares rise during peak tourism months and drop during off-seasons (Wei & Grubesic, 2016). Prices to top tourist destinations show the highest dispersion during holiday periods (Martinez et al., 2017).

In India, dynamic pricing and revenue management are common. Weekend fares are higher than weekday fares, and competition increases fares closer to departure (Santra & Dutta, 2015). Prices on competing airlines for the same route are positively correlated (Dutta & Santra, 2016). After the Covid-19 demand drop, airlines focused on loss minimisation through variable cost recovery (Agrawal, 2020).

2.4.3.2 Destination Airport

Airfares vary by destination. Goetz and Sutton found regional fare differences across 114 U.S. cities, linked to airport competition and

concentration (Goetz & Sutton, 1997). In Europe, airlines from the destination country show lower price dispersion compared to foreign carriers (Szopiński & Nowacki, 2014). Martinez et al. found price levels depend on distance and destination type, with higher prices at wealthier destinations (Martinez et al., 2017). Quantity discounts are lower for long routes, large destination airports, and where airlines hold high market shares (Cattaneo et al., 2016).

Increased competition lowered both business (weekday) and leisure (weekend) fares in the U.S., but leisure fares dropped faster, increasing overall dispersion (Hernandez et al., 2017). A comparison of U.S. and Chinese markets revealed lower price dispersion in the U.S., attributed to a mature internet market (Bock et al., 2007). Comparing India and China, Indian markets showed higher price elasticity, likely due to higher LCC penetration (Wang et al., 2018).

In India, domestic passenger traffic is strongly linked to GDP growth. A 10% increase in GDP results in a 16.4% rise in domestic passenger traffic, and international traffic also shows high GDP elasticity (Singh et al., 2016).

2.4.3.3 Airport Domination and Hubs

When one or two carriers dominate major airports in the U.S., it often leads to hub formation and higher fares for passengers (Vijver, 2014). Large airports dominated by a single carrier usually act as that carrier's hub (Bilotkach & Pai, 2014). A carrier's market share on a route strongly affects its ability to charge higher fares, often pricing above cost compared to smaller competitors (Borenstein, 1989).

Brueckne and Spiller (1991) explained that hubs allow airlines to channel passengers efficiently, increasing traffic density. However,

this may also raise prices on other routes because passengers are diverted from those markets. Kahn (1993) supported these findings, while Vowles (2000) observed that hub dominance, market share, and destination type all affect pricing. Harris and Emrich (2007) further found that hubs increase both local and connecting demand, often leading to higher fares.

Passengers prefer direct flights, seen as higher quality and priced higher, while cheaper connecting flights and competition encourage hidden city ticketing (Aslani et al., 2014).

Yetiskul argued that lower airline costs are often due to simpler operations, such as frequent direct services in a point-to-point network. However, because time savings affect passenger preferences, demand increases and airlines respond by adding more flight frequency (Emine et al., 2005).

2.4.3.4 Aviation Liberalisation Policies

Liberalisation in the EU initially did not increase competition in fares or frequencies (Wit, 1995). However, Bowen noted that deregulation opened new routes and gave airlines flexibility to respond to market opportunities and cut unprofitable operations (John T. Bowen & Leinbach, 1995). In the U.S., deregulation increased passenger traffic by 55% and scheduled revenue passenger miles by 60% (Button, 1998).

Goetz observed that deregulation lowered fares and increased passenger numbers and service frequency in the U.S. He identified a "core-periphery" industry structure, where 22 core markets dominated by one or two carriers benefited more than peripheral markets (Goetz & Sutton, 1997). He later noted entry barriers and

economies of scale leading to oligopoly control and higher fares (Goetz, 2002). Deregulation overall increased passenger volume, expanded service to popular destinations, and reduced average fares (Goetz & Vowles, 2009).

Increased competition from liberalised bilateral aviation policies raised passenger volumes flying foreign carriers in the U.S. and Japan (Endo, 2007). Liberalisation in Europe expanded scheduled services but reduced charter flights (Dobruszkes & Mondou, 2013) and led to more route choices, higher service levels, and lower fares (Bush & Starkie, 2014). Tavana noted that unrestricted fare environments can create long-term downward pressure on demand (Tavana & Weatherford, 2017).

In Africa, gradual liberalisation and subsidies increased passenger flows (Prins & Lombard, 1996; Surovitskikh & Lubbe, 2015).

2.4.5 Demand Uncertainty

Unpredictable demand is common in LCCs because both business and leisure travellers are their customers. Airlines use price discrimination strategies to handle this uncertainty, leading to price dispersion.

Peak demand uncertainty creates asymmetric equilibrium prices. Price dispersion is a natural response when passengers face high costs for changing flights (Dana, 1999; Escobari, 2012). An increase in dispersion is often an optimal response to uncertain demand (Stole, 2000).

Advance ticket sales improve revenue and manage uncertainty, increasing total sales and profits in Europe (Xie & Shugan, 2001). In

the U.S., fare strategies vary widely across routes, with some showing extreme price differences (Brennan, 2005).

Market structure influences how demand uncertainty affects dispersion: it has little effect in monopolies but reduces dispersion in duopolies and competitive markets (S. Li, 2007). Airlines also use last-minute and opaque "willing-to-pay" bids, and customer expectations of such strategies influence pricing (Jerath et al., 2010). Uncertain demand complicates pricing (S. Lee, 2010). Tools like the "consumer indecisiveness map" help airlines manage such uncertainty (Dost & Geiger, 2017).

2.4.6 Density of Flight

In the U.S., price dispersion falls as flight density increases; airlines with a large share of flights on a route show lower dispersion (Borenstein & Rose, 1994).

Shapiro (2008) found greater dispersion on big-city and monopoly routes than on leisure routes or competitive routes. Routes with more leisure travellers have less dispersion than those with more business travellers. Small rural airports often show high fares with either low or high fare variability (Wei & Grubesic, 2016).

2.4.7 Empty Core

The "empty core" problem arises when demand is too low to meet the minimum efficient scale (MES). Button observed this issue in Europe (Button, 1996), and Antoniou (1998) suggested horizontal mergers to resolve it. Later, Button (2002) noted that instability and structural changes, including LCC growth, caused undersupply and lower fares in the U.S. market.

2.4.8 Competition / Market Concentration

Competition significantly affects price dispersion. In the U.S., price discrimination decreases as market concentration rises; discounts are lower where market concentration is high (Stavins, 2001). Prices increase with concentration and fall with competition (Steven A Morrison & Winston, 1990). More competition can increase fare variation, showing a complex relationship (Borenstein & Rose, 1994).

Qihong (2003) found a non-monotonic positive link between concentration and dispersion, while Vowles (2006) noted that competition reduces fares even as distance increases them. U.S. price discrimination mainly targeted competitors, not other transport modes (Kim, 2006).

Market power affects pricing differently: higher market share can increase discrimination against business travellers and reduce vacation discounts, lowering dispersion at lower fares (Chi, 2008; Chi, 2014). Pricing and product differentiation strengthened U.S. airline competitiveness (Pitfield, 2008), and pricing is a key competition tool (Pitfield, 2009). LCCs avoid direct competition with each other (Button & Ison, 2009). Code-sharing reduces empty seats, decreasing price dispersion (Orcholski, 2011). Concentration extremes did not significantly affect dispersion (Chakrabarty & Kutlu, 2014).

Advance fare discounts rise with competition. In Europe, fares drop when more seats are available (Malighetti et al., 2009). Competition reduces low-end fares more than high-end fares in the U.S. (S. Lee, 2010). In Australia, competitive routes showed less variation than monopoly routes (Roos et al., 2010). Turkish duopoly airlines also showed strong price-following behaviour (Thomas-zadeh, 2014).

In Europe, more competition slowed the rate of fare increases closer to departure, limiting discrimination against late bookers (Siegert & Ulbricht, 2015, 2020). High-speed rail in China reduced short-haul airline demand and caused airport congestion issues (Fu et al., 2012; Ma et al., 2020).

2.4.9 Influence of Technology

Technology enables easy price discrimination. Internet and mobile apps allow airlines to quickly adjust prices based on real-time data.

Price dispersion remains common in the U.S., with market structure influencing it. Internet adoption initially widened dispersion but later reduced average prices and inter-firm dispersion, while within-firm dispersion rose (Scholten, 2003; Orlov, 2005). Online fares are about 13% lower than offline fares, and dispersion first rises then falls as internet access increases (Sengupta, 2007).

Computer reservation systems expanded discrimination possibilities (Gillen & Gados, 2009). Higher mean prices and dispersion discourage ticket searches and purchases (M. Lee, 2009). Online marketplaces can have lower dispersion than shop-bots, with seller reputation driving price differences (D J DiRusso, 2010). Online buyers pay about 11% less than offline buyers, and dispersion falls as internet usage grows (Sengupta & Wiggins, 2014).

In India, structural and regulatory factors impact airline performance, but LCCs have achieved operational efficiencies. Higher technical efficiency improves pricing power, allowing airlines to charge price premiums (Saranga & Nagpal, 2016).

Technology also makes dynamic pricing easier through fast price adjustment, instant price comparison, and rapid customer responses

(Ayadi et al., 2017). Advanced computational methods help airlines predict demand and set discriminatory prices using historical data on ticket prices, booking dates, and departure dates (Ahmed et al., 2019).

2.4.10 Passenger Heterogeneity

Passenger heterogeneity, driven by different travel needs, is a key feature of the aviation market, especially in LCCs (Vulcano et al., 2002; Chen, 2005). This is mainly due to the mix of business and leisure travellers (Mason, 2000; Papatheodorou & Lei, 2006; Martínez-garcia et al., 2012; Siegert & Ulbricht, 2015). Brand preference differences also contribute to heterogeneity (Borenstein, 1985). Dynamic pricing itself is based on passenger heterogeneity (Clemons et al., 2002; S. Lee, 2010; W. Li et al., 2018). Differences also exist in booking times, ticket validity, change fees, and fare conditions (Tsai, 2016).

Price dispersion rises in heterogeneous markets. Siegert & Ulbricht (2015) noted that homogeneous passengers show almost no price difference, while highly heterogeneous markets showed fares increasing 0.65% per day, especially on monopoly routes. Leisure traveller dominance reduces price dispersion because yield management is less effective with them (Bilotkach et al., 2015).

Infrequent flyers are another heterogeneous group, with travel decisions influenced more by personal factors than aviation issues (Graham & Metz, 2017). A Mumbai survey revealed distinct FSC and LCC passenger groups: some sensitive to fare changes, others to product features. Leisure passengers on FSCs tolerated up to 30% price increases for schedule and reliability, while most leisure travellers preferred LCCs (O'Connell & G Williams, 2006).

Brand strength influences customer loyalty and price sensitivity (Borenstein, 1985; Chen, 2005). Frequent flier programs are used to retain customers and reduce switching (Daraban & Fournier, 2009).

2.5 Strategies Adopted for Price Discrimination

Airlines use several pricing strategies to address passenger heterogeneity and fluctuating demand. These include first-degree price discrimination, advance purchase rules, higher prices for refundable tickets, lower prices for non-refundable tickets, and peak-load pricing (Shapiro, 2008).

2.5.1 Market Segmentation

Market segmentation allows airlines to discriminate by price. Examples include advance purchase requirements, non-refundable tickets, and Saturday-night stay rules (Cornia et al., 2012). Business and leisure travellers differ: business travellers have time constraints and are less sensitive to fare changes, while leisure travellers are more price-sensitive (Martínez et al., 2012).

Non-business travellers are willing to pay more for services like luggage and daytime arrivals (Chang & Sun, 2012). Mason & Gray (1995) identified three business class segments: schedule-driven, corporate, and informed budget travellers, each with different price sensitivities and product expectations.

Business travellers often book late and pay higher fares, increasing price discrimination (Gillen & Hazledine, 2006). Revenue management models segment passengers by elasticity (Turkmen, 2008). Last-minute tourist deals (Koenigsberg et al., 2008) and higher fares near departure (Button & Ison, 2009) are common. Leisure travellers, being flexible and price-sensitive, are often

willing to use secondary airports and basic services (Fageda et al., 2015; Lee & Luengo, 2004).

Differences in price elasticity and brand preference influence segmentation (Borenstein, 1985; Granados et al., 2012; Stacey, 2015; Morlotti et al., 2017). Each additional seat sold increases fares by about 2.56% in Europe (Alderighi et al., 2012). Passengers are segmented by willingness to pay, enabling inter-temporal discrimination—charging business travellers more while giving leisure travellers cheaper fares (Balaiyan et al., 2019; Lazarev, 2013).

In India, a separate "corporate booking" segment exists, often booked a year in advance at special rates (Karthik & Mitra, 2016). EasyJet's dynamic pricing adjusts low-fare seat numbers even when posted ticket prices don't change (Alderighi et al., 2017).

2.5.2 Ticket Restrictions

Restrictions on tickets (non-refundable fares, round-trip discounts, change fees) increase price dispersion. SpiceJet offers hand-baggage-only fares, charging extra for seat selection, food, and other services (SpiceJet, 2018).

Lower airfares are associated with more ticket restrictions, and discounts shrink as market concentration grows (Stavins, 2001). Ticket restrictions support discrimination strategies, though LCCs have reduced FSCs' scope for this practice (M. W. Tretheway, 2004). Strict cancellation penalties discourage reporting cancellations, and overbooking offsets cancellations but risks denied boarding, damaging airline reputation (Garrow & Koppelman, 2004; Guo et al., 2016).

2.5.3 Proximity to Departure Date

Business travellers book late and are less price-sensitive, so airlines charge higher fares closer to departure. Many studies confirm steep price increases as departure approaches (Bilotkach et al., 2010; Gillen & Mantin, 2009; Button & Ison, 2009; Chellappa et al., 2011; Alderighi et al., 2015; Xie & Shugan, 2001; Jay Graham et al., 2010; Alderighi et al., 2012; Domínguez-Menchero et al., 2014; Siegert & Ulbricht, 2015; Szopiński & Nowacki, 2015; Alderighi et al., 2017; Lantseva et al., 2015). However, some Russian domestic flights showed decreasing prices closer to departure (Lantseva et al., 2015).

2.5.4 Holidays and Weekends

Holidays and weekends raise demand and fares. Prices are often higher from the start of booking and rise further as departure nears. Mega-events also raise fares before, during, and after the events (Beria & Laurino, 2016).

Some studies found prices before and after holidays higher than on the holiday itself (Escobari, 2012; Y. Liu, 2013; Ahmed Abdella et al., 2019; Mathur, 2020). Australian, Japanese, and Chinese routes show strong seasonality (Koo et al., 2013). Many scholars noted holiday and weekend effects on dispersion (Turkmen, 2008; Garrigos-simon et al., 2010; Lazarev, 2013; Alderighi et al., 2015). In some cases, tour packages and charter flights lowered holiday fares (Pels, 2009; Castillo & Lopez, 2014; Fageda et al., 2015). Emirates Holidays is one example of bundling services for better cost control (Redpath et al., 2016). Event impact also varies by location (Hawkins & Mothersbaugh, 2010).

2.5.5 Fare Buckets

Vinod (2010) identified three main fare types: public fares (via travel agency websites), private fares (for wholesalers and agents), and web fares (sold directly by airlines). Dynamic pricing can occur even if visible ticket prices don't change, as airlines shift seats between fare classes near departure (K. Button et al., 2007; Alderighi et al., 2017).

Other studies confirm the impact of fare buckets on pricing dynamics (Aslani et al., 2014; Sengupta & Wiggins, 2014; Bilotkach et al., 2015; Thirunavukkarasu & Nedunchezian, 2016; Tavana & Weatherford, 2017; Madireddy et al., 2017).

2.6 Passengers' Perception of Airline Price Dynamics

The literature on passengers' perception of airline price dispersion is limited, but it provides some insight into how passengers view dynamic pricing.

Hawkins and Mothersbaugh explained that consumer satisfaction influences attitudes toward products, firms, and prices. Satisfaction depends on perceived value, and customers tend to reduce unpleasant dissonance (Hawkins & Mothersbaugh, 2010). Purchase behaviour is influenced by hedonic factors such as curiosity and entertainment, especially in online shopping (Kivetz, 1999; Childers et al., 2001). Price search behaviour depends on a consumer's ability, motivation, and the perceived benefits of searching. Perceived price dispersion often leads to consumer search (Ramos, 2003; Paciello et al., 2019). Advertising and online promotions affect ticket purchases, as seen with AirAsia (Yasin & David, 2014). Awareness of products and brands also influences purchase decisions (Oke et al., 2016), and brand image and price impact customer satisfaction (Hasan et al., 2020).

Price fairness judgments are based on comparing transactions. Consumers evaluate whether they received value for money and whether they were treated fairly (Xia et al., 2004). Cost transparency can sometimes create perceptions of unfairness (Hsing Wen, 2006). Temporal proximity and the size of price differences influence fairness perception (Dai, 2010). If consumers realise they paid more than others for the same service, they may see it as unfair, and negative word of mouth often follows (Xia & Monroe, 2010; Katyal et al., 2019). Positive and negative price changes trigger different emotional responses, shaping fairness perceptions both before and after purchase (Y. Liu, 2013).

Online purchase behaviour is influenced by previous experience and ease of use. Some customers try online booking for novelty but abandon it if they face difficulties (Hua, 2005). Electronic word of mouth (e-WOM) now significantly influences purchase decisions (Lerrthaitrakul & Panjakajornsak, 2014). Factors like habit, price savings, and ease of transaction also influence online ticket buying (Escobar & Carvajal, 2013).

Customized pricing enables third-degree price discrimination (Elmaghraby & Keskinocak, 2003). Price recall can increase post-purchase dissonance (Homburg et al., 2012), while repurchase intention depends on perceived value and prior experience (Yang et al., 2012). Differential pricing often generates negative consumer reactions unless customers are involved in the pricing process (Richards et al., 2016). Familiarity with revenue maximisation practices and whether a consumer benefits or loses from them strongly affects fairness perceptions (Wirtz & Kimes, 2007). Attitude influences purchase intention (Ruiz-Mafe et al., 2013).

Internet-based differential pricing increases perceived unfairness because customers can easily compare prices (Grewal et al., 2004). Attitudes towards booking time, ticket validity, and fees also differ among passengers (Tsai, 2016). Factors like relative advantage, compatibility, and trialability shape attitudes (Rogers, 1983).

Škare and Gospić found digital technologies enabled dynamic airline pricing, adjusting fares by demand and timing, boosting revenue but raising fairness concerns among passengers (Škare & Gospić, 2015).

2.6.1 Demographic Differences in Perception

Gender does not significantly affect computer-related attitudes and perceptions (Bain & Rice, 2006), but women tend to perceive lower fairness in pricing than men (Beldona & Namasivayam, 2006). Perceived fairness also varies with culture (Bolton et al., 2010) and with customer experience and brand preference (Setiawan et al., 2016).

2.6.2 Exploitation under Airline Price Dynamics

Steiner described exploitation as a bilateral exchange rather than outright theft (Steiner, 1984). Exploitation can sometimes be mutually beneficial, improving welfare for both parties (Zalta, 2023). However, concerns arise when customers perceive unfair treatment. Dynamic pricing creates both positive and negative attitudes (S. B. Martin, 2012). Unfair prices are often perceived as exploitation (Xia et al., 2004). Price fairness judgments are influenced by comparisons, particularly when customers are unaware of cost structures (Bolton et al., 2010). Amazon faced backlash from loyal customers when it tried differential pricing (Lyn Cox, 2001).

In the U.S., monopoly and oligopoly control raised fares, prompting regulatory scrutiny (Goetz, 2002). In India, the Parliamentary Standing Committee described dynamic pricing as exploitative after observing fares ten times higher than advance-booking prices, recommending a fare cap (PTI, 2018). During the Covid-19 pandemic, India's Ministry of Civil Aviation imposed minimum and maximum fare limits (DGCA, 2020). The ministry stated in 2022 that airlines are free to set fares unless they are predatory (MCA, 2022). Still, parliamentary debates on high fares continue, labelling them as exploitative (ANI, 2023).

2.7 Deregulation and Dynamic Pricing

Dynamic pricing in airlines expanded after deregulation, particularly in the U.S. Deregulation in 1978 opened the aviation market, attracted new passengers, and significantly increased traffic (Goel, 2013). It also reduced average inflation-adjusted fares per passenger by 49% (Brennan, 2005).

Other countries followed similar paths. Deregulation of South Africa's domestic market in the 1990s increased passenger volumes through the growth of low-cost carriers (LCCs) (Surovitskikh & Lubbe, 2015). In Australia, deregulation in the 1990s, reinforced by another wave in 2000, drove traffic growth through LCC entry (Lawton & Solomko, 2005). However, deregulation also made the industry vulnerable to overcapacity and price wars (Jarach et al., 2009).

Liberalisation policies were also adopted in Malaysia, Taiwan, Pakistan, Nepal, South Korea, and the Philippines during the early to mid-1990s (Lawton & Solomko, 2005). In India, deregulation

began in 1994 with the entry of private airlines (Naresh Chandra, 2003).

Overall, deregulation and dynamic pricing contributed to strong airline industry growth in many nations, aided by the rapid expansion of LCCs. However, airline traffic growth also depends on broader industrial and economic development, as travel demand is often linked to business and social purposes rather than pricing alone (Škare and Gospić 2015).

Recent research shows that while airline passengers have become familiar with traditional dynamic pricing, attitudes toward personalized dynamic pricing remain mixed. In a German consumer survey, half of the airline customers accepted existing dynamic pricing practices, although one-fifth still expressed strong reservations. The study concludes that while PDP offers potential revenue gains, it poses risks to customer loyalty and trust if perceived as unfair or invasive, indicating that attitudes toward dynamic pricing are shaped not only by price levels but also by transparency, data use, and perceived fairness. (Krämer et al., 2017).

A Dutch consumer survey showed widespread rejection of online price discrimination and dynamic pricing, with most respondents labelling such practices as unfair and supporting regulatory bans. Even common offline practices like holiday surcharges and “full flights” premiums were unpopular, indicating generally low tolerance for differential pricing (Poort & Zuiderveen Borgesius, 2019).

2.8 Related Studies on Indian Civil Aviation Market

Srinivasan presented a descriptive analysis of the then scenario of the Indian aviation market (Srinivasan & Prasad, 2014). Mazumdar presented a mathematical model for seat allocation in the airline industry based on some assumptions (Mazumdar & Ramachandran, 2011). This chapter discussed 22 other research articles on the Indian airline industry collected from reputed research repositories. All these reviews proved that there are a few pieces of literature contributed by the researchers on the Indian civil aviation market, especially on the pricing of airline tickets.

A study on customer satisfaction in the Indian airline sector conducted by Sarkar and Baisya found that satisfaction significantly influences passengers' future usage intentions and loyalty. Key satisfaction drivers included safety, network coverage, punctuality, flight schedules, and economical fares, with minor differences across airlines and passenger demographics (e.g., women valued safety slightly more). Airline preference shaped satisfaction priorities: Indian Airlines passengers emphasised route networks, Jet Airways passengers focused on punctuality, and Air Sahara passengers prioritised safety. The findings confirm that focusing on specific service attributes alongside overall satisfaction is crucial for retaining customers in a competitive airline market (Sarkar and Baisya, 2005).

2.9 Research Gap

Although dynamic pricing is a well-established revenue management strategy in the airline industry and has been extensively examined in developed markets for its impact on price dispersion, market segmentation, and technological innovation, studies focusing

on India's civil aviation sector remain scarce. Empirical research on price dispersion in the Indian airline market, particularly its relationship with market concentration and neighbouring-day pricing effects, is very limited. Furthermore, while global studies have explored fairness concerns and passenger acceptance of dynamic pricing (Poort & Borgesius, 2019; Krämer et al., 2017), there is little evidence on whether Indian passengers are aware of dynamic pricing practices, how they perceive its fairness, and what factors influence their attitudes. Most existing studies approach pricing from the airline's perspective, leaving a gap in understanding the consumer perspective, including demographic, behavioural, and experiential determinants of attitude. This research attempts to bridge this gap by investigating passengers' awareness, attitudes, and the factors shaping their perceptions of airline price dynamics in India. Hence, this study is essential to provide empirical insights into passengers' awareness, attitudes, and the underlying factors influencing their perception of airline price dynamics in India, an area that remains largely unexplored despite its growing significance in a dynamically evolving aviation market.

Chapter 3

Indian Airline Industry and Dynamic Pricing

Chapter 3

3.1 Introduction

The Indian airline industry has grown rapidly from its modest beginning in 1911, when the world's first airmail service was operated in Allahabad, to becoming one of the fastest-growing aviation markets globally. Its evolution has been marked by three phases—early private operations, nationalisation in 1953, and liberalisation from the 1990s onwards. Liberalisation enabled private participation and fostered competition, leading to the emergence of several private airlines and the adoption of modern business models. The entry of Low-Cost Carriers (LCCs) from 2003 further transformed the market, making air travel affordable to a larger segment of the population and attracting many first-time flyers.

Pricing practices in India also changed significantly. For decades, fares were government-regulated and uniform across booking periods, offering little flexibility to airlines or passengers. With liberalisation and the advent of online booking, flexible fare policies, and auction-based ticketing, airlines adopted dynamic pricing—adjusting fares based on demand patterns, booking time, and market conditions. Dynamic pricing has now become a key revenue management strategy, especially for LCCs, enabling better capacity utilisation and competitive pricing options for passengers.

This chapter provides an overview of these structural, regulatory, and pricing developments, focusing on how dynamic pricing has evolved as a standard practice and sets the context for analysing passenger attitudes towards such pricing mechanisms.

3.2 History of the Airline Industry

A description of the history of civil airlines in the World and India provides a bird's eye view of this industry.

3.2.1 Global History of the Airline Industry

Air transport began with Orville Wright's first powered flight in 1903 in North Carolina, USA (N Service, 2015). The first air passenger was Henry Farman in 1908, flown by pilot Leon Delagrange (Russell Naughton, 2002). The Wright Brothers introduced the first commercial aircraft model, the Wright Model B, in 1910 (Brothers, 2013).

Scheduled airline service began in 1914 on the St. Petersburg–Tampa route in the USA. Passenger capacity increased significantly with the Dornier Do X aircraft in 1929, which could carry 100 passengers (Sharp, 2018; Spooner, 1930). The first operational jet aircraft, Me 262, appeared during World War II. After the war, many fighter aircraft were converted for commercial use, resulting in rapid growth.

The Chicago conferences, starting in 1944, established international regulations, including overflight and non-traffic landing rights for airlines (K. J. Button, 1998). These steps accelerated the development of global commercial aviation.

3.2.2 History of the Indian Airline Industry

The history of Indian airline industry can be divided into three segments: early beginning, nationalisation and privatisation.

3.2.2.1 Early Beginning

India's civil aviation began in 1911 with a Humber biplane flight between Allahabad and Naini, carrying 6,500 letters, which is considered the world's first airmail service. International flights began in 1912 when Indian State Air Services partnered with UK-based Imperial Airways (Chakravarty, 2011).

The Bombay Flying Club, founded in 1928, played a key role in pilot training. J.R.D. Tata, India's first licensed pilot, flew the first airmail service between Karachi and Mumbai in 1932, marking the start of scheduled civil aviation in India (Airindia.com, 2015; Bombay Flying Club, 2015). Tata Airlines, established the same year, became Air India Ltd in 1946. Several other private airlines, including Deccan Airways and Kalinga Airlines, emerged by 1945 (Chakravarty, 2011).

3.2.2.2 Nationalisation of the Indian Airline Industry

The Directorate General of Civil Aviation (DGCA) was set up in 1931 to regulate civil aviation (Chakravarty, 2011). In 1953, the industry was nationalised: nine private airlines merged into two government-run entities—Air India International Limited for international services and Indian Airlines Corporation for domestic operations (Airindia.com, 2015). These two companies had a monopoly until liberalisation in the 1990s.

3.2.2.3 Privatisation of the Indian Airline Industry

Privatisation began in 1986 when private players were allowed to operate non-scheduled air taxi services (Naresh, 2003). Cargo operations were opened to private participation in 1990 under the Open Sky Policy (DGCA, 1992). The Air Corporations Act, 1953,

was repealed in 1994, allowing private scheduled airlines (The Air Corporations Act, 1994).

Several private airlines emerged after deregulation. East West Airlines (1990) was profitable but closed in 1998 after management issues (G. Singh, 2015; A. John, 2018). Damania Airways (1993) was sold to NEPC and soon ceased operations (Giriprakash, 2020). Modiluft (1994) ended in 1996 but later rebranded as SpiceJet in 2005 (Business Standard, 2020). Air Sahara (1993) operated successfully for seven years before being acquired by Jet Airways and rebranded as JetLite (Pande, 2021). Air Deccan (2003), India's first Low-Cost Carrier (LCC), was acquired by Kingfisher in 2007 and later rebranded as Kingfisher Red (Tilak, 2020; Dhamija, 2018). Kingfisher itself, launched as a full-service carrier in 2005, shut down in 2012 after severe financial losses (TOI News, 2021).

On the public sector side, Alliance Air (1996) and Air India Express (2005) were incorporated, and in 2007 both became subsidiaries of Air India Ltd (Choudhury & Saha, 2007). Public-sector airlines witnessed mergers and restructuring but no closures.

3.3 History of Airline Pricing

Until the late 1970s, airline pricing around the world was strictly regulated. However, the declining performance of the airline industry pushed governments to adopt liberalisation and deregulation policies. Examples of such policies from different countries, including India, are outlined in the following sections.

3.3.1 Global History of Airline Pricing

Until the late 1970s, most countries regulated airline pricing. The U.S. Airline Deregulation Act of 1978 liberalised fares, leading to

lower prices (Goetz & Sutton, 1997; S. A. Morrison & Winston, 1990). Europe deregulated aviation during the 1980s and 1990s, completing the process by 1997 (Pels, 2009; Burghouwt et al., 2003). Similar reforms followed in China (1979), South Africa (1991), and Korea (2008), making deregulation a global trend (Gechev, 2018; Mhlanga, 2017; Sun, 2014).

3.3.2 History of Airline Pricing in India

In India, fares were regulated until the early 1990s, with changes requiring legal approval (Phadnis, 2015). Manual ticketing prevailed until the 1980s, and automated booking through global distribution systems in 1990 enabled market-linked fares.

The introduction of online booking by Air India in 2002, along with online ticket auctions and flexible fare policies, marked the beginning of dynamic pricing in India (AAI, 2003). Air Sahara also experimented with auction-based fares in 2002 (Saran, 2002). The launch of Air Deccan in 2003, India's first LCC, brought a low-cost model that rapidly captured 10% of the domestic market, attracting first-time fliers (O'Connell & Williams, 2006). By 2009, LCCs accounted for over 63% of the domestic market (NTDPC, 2012).

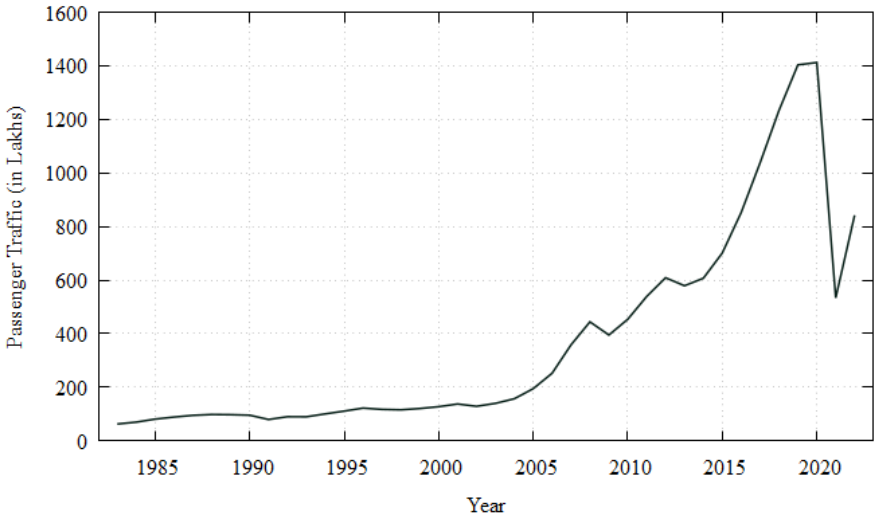
3.4 Growth in Domestic Airline Traffic

The development of airports should not be limited to the number of airports alone. The number of fleets, seating capacity and the passenger and cargo handled also show the developmental status of the airports. The number of domestic passengers carried by the industry increased from one in 1932 to 441 in 1950 (Tata, 1961). Passenger traffic increased further from 117.41 lakhs in 1997 to 1,386.98 lakhs in 2018. That means the capacity has increased by

1,081% from 1997 to 2018. A 64% increase in the number of airports has resulted in a 1,081% increase in passenger carrying. Figure 3.1 shows the time series progression of domestic passengers carried by all the Indian carriers from 1982 to 2022.

Figure 3.1

Domestic Passengers Carried by Indian Carriers



Source: Compiled by the researcher from various reports of DGCA

The total passenger traffic shows an increasing trend from 1983 to 2022. The rapid growth in the total passenger traffic began in 2005, with a sudden increase of nearly 61% from the previous year. The trend continued with a rise of 42% in 2007 also. The year 2015 and 2016 continuously showed a more than 20% increase from the previous years. The following two years also showed a more than 17% increase in passenger traffic. Slight declines were there in the years 1989, 1990, 1991, 1993, 1997, 1998, 2002, 2009, and 2013. The total traffic declined by 62.23% in the year 2021 due to covid pandemic effect. The year 2022 showed an increase in the air

passenger traffic by 57.85% from the previous year. Figure 3.2 shows the average Passenger Load Factor (PLF) from the year 1995 (data available from 1995 only) to 2022.

Figure 3.2

Average Passenger Load Factor (Domestic Airlines)

Source: Compiled by the researcher from various reports of DGCA

As per Figure 3.2, the average PLF of all domestic airlines ranges from 55.5 to 86.8 per cent. Even in the year 2021, when passenger traffic was reduced due to covid pandemic, PLF was 73.4 per cent. In the year 2022, PLF increased to 81.5 per cent. This indicates that airline companies could adjust their supply with the demand.

3.5 Price Dynamics and Growth of the Airline Industry

Dynamic pricing is the phase of the airline industry. There are many studies to support dynamic pricing because it contributes to the development of the airline industry sector. These arguments are based on the traffic growth that resulted from the deregulation of prices by governments. All these studies support the role of LCCs in

making air transportation the transport of even the lower middle class of an economy. The lower fare buckets help to attract price-sensitive travellers. They also attract new customers for their first experience. The convenience, time-saving element, and comparatively low rate will help to retain such customers. The subsequent higher rates would help the airlines to compensate for the low bucket fares. Apart from this, justification of dynamic pricing strategy on the ground of its contribution to the development of the air travel industry can be spurious. Travellers choose air travel because of the convenience this sector offers, including speed and a comparatively low fare. But its influence on his travel purpose is relatively less. His travel purpose should be attached to the development of other industries. Hence the growth of the air travel industry should be compared with the growth of overall industrial development reflected through the GDP of the country. The literature review also supported this argument of the cointegration of individual segments with the GDP growth of that nation (Zhao et al., 2014)(Saleh et al., 2015)(Alam et al., 2021). Literature also provides ample evidence for the cointegration of the growth of the airline industry with the GDP of nations (Fernandes & Pacheco, 2013)(Alexander et al., 2015)(Madurapperuma & Higgoda, 2020). The development of industries would influence the income level of travellers, and a positive change in the income level may benefit a high-cost convenient mode of the travel segment.

3.6 Major Organisations in the Civil Aviation Industry

The aviation industry operates through collaboration among government bodies, public sector undertakings, international

organisations, and voluntary associations to ensure safe and efficient air transport.

3.6.1 Government Organisations

Key government agencies under the Ministry of Civil Aviation (MCA) include the Directorate General for Civil Aviation (DGCA), Bureau of Civil Aviation Security (BCAS), and the Airport Economic Regulatory Authority of India (AERA).

- **DGCA** regulates air transport services within, to, and from India, ensures safety, and coordinates with ICAO (DGCA, 2020b).
- **BCAS** sets and monitors civil aviation security standards at airports (BCAS, 2020).
- **AERA**, established in 2009, regulates aeronautical tariffs and monitors performance standards at major airports (AERA, 2020).

3.6.2 Public Sector Undertakings

The Airports Authority of India (AAI), formed in 1995, manages and develops civil aviation infrastructure (AAI, 2020). Pawan Hans Helicopters Ltd, incorporated in 1985, provides helicopter connectivity, including to remote areas (Pawanhans, 2019). Air India Ltd, formed by merging Air India and Indian Airlines in 2007, became the holding company for subsidiaries such as Air India Express and Air India Air Transport Services. In January 2022, the Tata Group took over Air India Ltd from the Government of India (Air India, 2022).

3.6.3 International Aviation Organisations

- **IATA** represents 290 airlines, accounting for 82% of global air traffic, and develops operational and policy frameworks (IATA, 2020).
- **ICAO**, a UN specialised agency, supports international cooperation in aviation safety and standards (ICAO, 2020).
- **Flight Safety Foundation (FSF)** provides independent aviation safety guidance globally (FSF, 2021).

3.6.4 Voluntary Associations

- **Air Passengers Association of India (APAI)** works for passenger rights and awareness (APAI, 2020).
- **Federation of Indian Airlines (FIA)** represents scheduled carriers, including FSCs and LCCs (FIA, 2020).
- **International Federation of Air Line Pilots' Associations (IFALPA)** represents pilots in nearly 100 countries (IFALPA, 2021).
- **Airports Council International (ACI)** represents airport operators globally and sets safety and service benchmarks (ACI, 2021).

3.7 Conclusion

The historical evolution of the Indian airline industry, the shift in pricing policies, and the emergence of dynamic pricing highlight how competition and technology have reshaped air travel. While dynamic pricing has become an accepted industry practice for optimising revenue and managing demand, it also directly influences passenger experiences and perceptions. Understanding how

passengers perceive and respond to these pricing practices is therefore crucial. The next chapter focuses on passenger attitudes towards airline dynamic pricing, exploring their awareness, fairness perceptions, and the factors influencing these attitudes.

Chapter 4

Development and Testing of Measurement Model

Chapter 4

4.1 Introduction

Price discrimination is a standard method adopted by firms to maximise profit. This strategy is adopted by firms wherever market segmentation is possible (Stole, 2000). It is customer oriented and helps their economic well-being (Gifford et al., 2010). Price discrimination is legal when it is not based on sex and caste. But dynamic pricing based on customer segmentation is not yet fully legalised everywhere. It is a comparatively recent phenomenon developing on the shoulder of technology (Elmaghraby & Keskinocak, 2003). Only the airline industry has globally accepted this pricing method in the travel industry.

Offering the same service at a different price to different customers could expectedly bring the objection of consumers. There is always a chance of post-purchase dissonance and allied customer reactions. But civil aviation has not reported such issues in any country. Hence, it is curious why the passengers do not challenge airline price dynamics. The researcher could find no studies mainly related to this phenomenon. This research gap is addressed by analysing the factors leading to attitudes towards price dynamics.

4.2 Structural Equation Modelling

This chapter analyses and interprets data collected from 409 passengers through a structured questionnaire. First, the researcher identified the relevant variables by reviewing extant literature. Next, the association between the observations and underlining theoretical constructs is analysed by developing an exploratory measurement model. Finally, the model is designed and tested through Partial Least Squares Structural Equation Modelling (PLS-SEM) for its validity and reliability with the Hierarchical

Component Model (Lohmoller, 1989). The researcher used Smart PLS 4 for this modelling.

PLS is a data analysis technique. This technique tests the theoretical relations of the variable (Willaby et al., 2014). PLS is a soft modelling approach introduced by Herman Wold, which relates manifest variables (MVs) and latent variables (LVs) by linear equations (Lohmoller, 1989). Directly observed variables (MVs) are assumed to be the indicators of indirectly observed variables (LVs) which are indicated by their arrow scheme (channels of information) and their block structure (Wold, 1980).

PLS-SEM is a popular tool for analysing Structural Equation Modelling (Sarstedt & Cheah, 2019). PLS-SEM plays a vital role as a tool in a more exploratory analytic approach (Richter et al., 2016). A robust framework for estimating causal models with latent variables is provided by PLS (Henseler et al., 2009). It is consistent with the accepted modelling philosophy, testing theoretical relations among the variables (Willaby et al., 2014). Various researchers have frequently used PLS-SEM for model validation since 1980s, as evidenced by the research articles published in eight leading management journals (Hair et al., 2012). Willaby proves that PLS offers a viable means to explore and text complex models beyond current limits compared to Structural Equation Modelling (Willaby et al., 2014). Ó Cheah observed that several research articles had been published in the web of science journals since 1995 using Smart PLS software (Sarstedt & Cheah, 2019). The steps executed with PLS-SEM to confirm reflective and formative measurement models offer several advantages over other approaches (Hair et al., 2020).

4.3 Demographic Characteristics of Respondents

Data is cross-evaluated with respondents' demographics, travel frequency, purpose, experience (domestic/international/both), and airline brand preference. The demographic profile of 409 sample respondents is given in Table 4.1.

Table 4.1

Demographic Profile of Respondents

Particulars	Frequency	Percentage
Nationality		
Indian	383	93.6
Foreign	26	6.4
Region		
South Indian	239	58.4
North Indian	144	35.2
Foreign	26	6.4
Gender		
Male	338	82.6
Female	71	17.4
Occupation		
Employees	310	75.8
Business and Religious Persons	58	14.2
Retired Persons and Others	41	10.0

Source: Primary Data, N=409

Table 4.1 shows that 93.6% of the respondents were Indians. 58.4% were North Indians, and 35.2% were South Indians. The majority of the respondents were male. Employees and religious persons were clubbed together for the analysis, covering 10 % of the

respondents. Students were excluded since the respondents were very few. Retired persons and others covered 14.2% of the respondents.

Travel requirements influence the airline-related decisions of customers, such as time of travel decision, the flexibility of travel decisions, time of booking, price elasticity, etc. (Morlotti et al., 2017). Hence, the researcher has collected data about the flight experience, travel purpose, frequency of travel, booking mode, and brand preference of the respondents. Table 4.2 shows the frequency of respondents.

Table 4.2

Travel Information of Respondents

Particulars	Frequency	Percentage
Travel Purpose		
Official Travel	130	31.8
Vacation/Leisure Trip	142	34.7
Holidays/Leave Travel to/from Work Place	137	33.5
Travel Frequency		
Frequent Traveller	220	53.8
Non Frequent Traveller	189	46.2
Flying Experience		
Domestic	158	38.6
International	93	22.7
Both Domestic and International	158	38.6
Booking Mode		
Through Online Websites	249	60.9
Through Travel Agency	137	33.5

Through Online by Friends and Relatives	23	5.6
Brand Preference		
No Brand Preference	128	31.3
Air India	47	11.5
Indigo	136	33.2
Others	98	24.0

Source: Primary Data, N=409

Official Travellers in the table denotes business travellers who travel for official purpose. They are more sensitive to time than price. Vacation/Leisure Trip in the table denotes tourists who are generally flexible in their travel plan. They are supposed to be more sensitive to price than time. Holidays/Leave Travel to/from Work Place denotes those who travel from their place of work to home during holidays or leave. They are more flexible than official travellers but less flexible than leisure trip.

Table 4.2 shows that the purpose of travel of 31.8% of the respondents was official, 34.7 % were leisure trips, and 33.5 % were left to travel from/to home/workplace. Respondents with three or more flight travel in a year are classified as 'frequent travellers' in this research, covering 53.8% of the samples. Of the samples, 38.6 % of the respondents have only domestic flight travel experience, and 22.7 % have international travel experience. 38.6% have experience in both domestic and international travel. Of the total samples, 33.5% (24+9.5) of the respondents depend on traditional travel agencies to book flight tickets. Remaining 33.3% depended on online booking agencies, and 27.6% rely on the airline company website for booking their tickets. Only 5.6% depended their friends and relatives for ticket booking. Among the airline

companies operating in India, 33.3% chose Indigo as their preferred brand. Of the samples selected, 11.5% preferred Air India, and 31.3% agreed that they prefer the low-cost airline over a particular brand. The remaining 23% prefer other brands.

4.4 Passengers' Attitudes Towards Airline Price Dynamics

Paying more or less than others may cause discomfort in the consumers, and they perceive a fare as unfair when they are paying more for a similar transaction than another customer (Xia & Monroe, 2010). There are several studies which favour the influence of attitude on online purchase intention (Yoon et al., 2006)(Thamizhvanan & Xavier, 2013) (Mandilas et al., 2013) (Wang & Ngamsiriudom, 2015) (Mohd & Mohd, 2017)(Silva et al., 2019). Attitude significantly predicts online purchase intentions, irrespective of the culture and attitude towards technology that affect online ticket purchase intention (Ruiz-Mafe et al., 2013), and attitude towards electronic tickets influences the usage of e-tickets (Chia-Yu Chen, 2007). Attitude towards service quality also will influence the choice between FCC and LCC (Yang et al., 2012)(Mason, 2000) and even the choice of the airport (Jung & Yoo, 2016) (Choi & Park, 2015)(Stone, 2016). Service failure and service recovery influence the attitude of loyalty, which is reflected through comments, word of mouth, and commendation (Chou, 2015). Expected and augmented benefits of a service can influence the attitude of customers towards it (Wang & Hsu, 2016).

4.4.1 Positive and Negative Attitudes

Attitude is the positive or negative feelings and beliefs regarding the outcomes of performing a given behaviour. For example, a customer may perceive a fare as unfair when they pay more for a

similar transaction than another customer. But consumer behaviour can change when they expect a future gain from the reinforced behaviour (Hsing Wen, 2006). Attitude is a significant predictor of airline ticket online purchase intentions, irrespective of the culture (Ruiz-Mafe et al., 2013). Perspectives of the passengers differ regarding air ticket price reasonableness (Tsai, 2016). Many researchers have conducted studies about the perception of the fairness of a price. The high degree of transaction similarity, perceived price discrepancy and comparative outcome determines the price fairness perception of customers (Xia et al., 2004). The capacity of the customers to compare the price with internal and external reference prices will influence the perceived ethicality (Ayadi et al., 2017). Social comparisons and the perceived outcome of the transaction have a crucial role in fairness perceptions (Xia & Monroe, 2010). Internet-based differential pricing has a higher chance of perceived unfairness since the consumers have a higher chance of interaction (Grewal et al., 2004). Rules of fairness are similar to wages, rent, and prices (Kahneman et al., 1986). Revenue management models lead to unfair pricing in the airline industry (Aslani et al., 2014). Generally, the attitude can be positive, negative, or neutral. But since airline pricing brings merits and demerits, the same customer may possess both negative and positive attitudes simultaneously. For example, he may feel positive about a low-priced ticket but negative about a high-priced ticket. So the researchers analyse the chances of both positive and negative attitudes. He may also feel a neutral attitude to both circumstances.

4.5 Determinants of Passengers' Attitudes to Airline Price Dynamics

Studies show that the consumer buying decision is a five-stage process - need recognition, information search, alternatives evaluation, purchase decision, and post-purchase behaviour (Hawkins & Mothersbaugh, 2010)(Oke et al., 2016)**.** A person with a travel need will naturally go through these stages. The researcher develops the model on this basic assumption. Price dynamics is a standard pricing policy in civil aviation, leading to price discrimination. This pricing policy can be beneficial to both time-sensitive and price-sensitive travellers. Same time it can lead to dissonance, when the price discrimination is much higher. Hence the researcher assumes that travellers' awareness of price dynamics, pre-purchase behaviour, and post-purchase dissonance behaviour can influence their attitudes towards price dynamics. This awareness and behaviour are influenced by a number of factors. These factors are traced based on the literature review.

4.5.1 Awareness of Airline Dynamic Pricing

Internet sources are significant sources of information, especially about the civil aviation market. Hence people with internet browsing skills have more chances to get informed about the characteristics of airline price dynamics. Word of mouth and airline advertisement are the other modes to get information about airline price dynamics. This awareness may influence the purchase behaviour of the airline travellers, including choice of airline, time of booking, mode of booking, etc. Price saving orientation, hedonic motivation related to e-commerce, and service quality perception may also influence their behaviour.

Personal observation of the researcher shows that airline companies hardly make advertisements in print or television media. They generally depend on social media and personalised advertisements through e-mails and SMS. Hence, people who use the internet have more chances to see advertisements from airline companies. Hedonic motivation towards electronic media may lead to browsing expertise. Word of mouth information and information received from the advertisements of airline companies will lead to better awareness of airline price dynamics. Awareness of customers about the characteristics of the product will influence their valuation of the product and purchase behaviour (Hawkins & Mothersbaugh, 2010)(Oke et al., 2016)(Fensen & Fepsen, 2008). Awareness of the airline price dynamics may also influence the travellers' purchase behaviour, including the time of purchase and choice of flight. This awareness may also affect their search behaviour for a ticket.

4.5.2 Pre-Purchase Planning Behaviour

Awareness of price dynamics and their characteristics may influence the pre-purchase planning behaviour of airline passengers. Price dynamics in civil aviation allow the traveller an option to purchase tickets at lower rates (Gillen & Hazledine, 2006). The time of booking is an important factor that decides the price (Ayadi et al., 2017). Online search engines allow an expert user to compare prices (Bock et al., 2007). Hence awareness of price dynamics and their characteristics may influence the pre-purchase planning behaviour of airline passengers. The time of booking the ticket (Dutta & Santra, 2016), making flexibility in the travel plan (Garrow & Koppelman, 2004), price comparison for choosing the lowest priced ticket (Bock et al., 2007) and the

selection of brand (Lin, 2015) could be the expected pre-purchase planning behaviour. Price-saving orientation (Escobar & Trujillo, 2013) and services quality perception (Heerde et al., 2008) may also influence this planning for the purchase of air tickets.

4.5.3 Post-Purchase Dissonance Behaviour

Tendency of the individual to experience anxiety, the difficulty of choosing among the alternatives, the importance of the decision to the consumer and the irrevocability of the decision may increase the magnitude of post-purchase dissonance. Customers always try to reduce dissonance since it is unpleasant (Hawkins & Mothersbaugh, 2010). Rather than the best option, people may find 'reasons' and 'principles' for their purchase decision mainly to reduce dissonance (Kivetz, 1999). The price increase may cause cognitive dissonance to a satisfied customer (Roth & Bösener, 2014). Retrieval of the price information within the recall time of the actual price paid may intensify the dissonance (Homburg et al., 2012). Price information associated with a product is processed more deeply in cases of dissatisfaction (Roth & Bösener, 2015). High prices, price increases, unfair pricing practices, and deceptive pricing can be some major reasons for dissatisfaction (Hawkins & Mothersbaugh, 2010). Online dynamic pricing strategies that lead to the payment of different prices for the same product may bring dissonance in the mind of consumers who compare the prices, which shall be reflected in their word of mouth (Ayadi et al., 2017). Everett M Rogers opines that a consumer wants to reduce his dissonance over various stages of purchase (Rogers, 1983).

4.6 Determinants of Attitudes - Independent Variables

Awareness of dynamic pricing, pre-purchase planning behaviour, and post-purchase dissonance behaviour are the constructs that influence their attitudes towards price dynamics. Hedonic motivation (HM), internet browsing expertise (IBE), word of mouth information (WMI), information from airline advertisements (IAA), E-payment expertise (EPE), price-saving orientation (PSO), and service quality perceptions (SQP) influence these constructs. These independent variables are discussed in detail with the supporting literature.

4.6.1 Hedonic Motivation (HDM)

Online purchasing provides hedonic enjoyment values (Silva et al., 2019). Hedonic motivation is a person's tendency to move towards pleasure and escape pain. Hedonic motivation can influence the browsing and online purchase intentions of a customer (Bigné et al., 2010) (Escobar-Rodríguez & Carvajal-Trujillo, 2013) (Martínez-lópez et al., 2016). Hedonic factors will influence purchase behaviour (Kivetz, 1999) (Sengupta & Wiggins, 2014)(Mandilas et al., 2013)(Hawkins & Mothersbaugh, 2010)(Escobar-Rodríguez & Carvajal-Trujillo, 2013). Curiosity, entertainment, visual attraction, etc., are part of hedonic motivation derived from online shopping (Martínez-lópez et al., 2016)(Childers et al., 2001).

4.6.2 Internet Browsing Expertise (IBE)

A person with internet browsing expertise will naturally search online to get information. Literature also supports this buying behaviour. Studies show that the online environment is a potential

source of information about dynamic pricing (Ayadi et al., 2017). J Choi and J Park proved that perceived ease of use and perceived usefulness positively impact usage intention (Choi & Park, 2015). Researchers also opine that attitudes towards technological change influence online ticket purchase intention (Ruiz-Mafe et al., 2013). Experience of using the internet is a highly explanatory variable in online user behaviour (Crespo-Almendros & Barrio-García, 2016) (Thamizhvanan & Xavier, 2013). Hence the expertise of a passenger in internet browsing may also influence the pre-purchase planning behaviour.

4.6.3 Word of Mouth Information (WMI)

Passing information from person to person, either orally or through social media, is termed word of mouth. Word of mouth communication affects consumer decision-making (Heriyati & Siek, 2011). Word of mouth information can directly or indirectly affect customers' decisions about using the services of airline companies (Yasvari et al., 2012). Recommendations from friends (peer influence) also influence the customer's intention to choose LCCs (Saha & Theingi, 2009). Electronic word of mouth of existing customers will impact the purchase decision of consumers (Lerrthaitrakul & Panjakajornsak, 2014)(Lin & Huang, 2015). Passengers use the recommendations of relatives, colleagues, friends etc., as their information sources for choosing the airline (Yasvari et al., 2012)(Saha & Theingi, 2009).

4.6.4 Information from Airlines' Advertisement (IAA)

Advertisements and frequent flier programs influence passengers' awareness and purchase decisions, especially in the LCC segment (O'Connell & Williams, 2005). Attractive marketing programs

help to attract and retain airline customers (Wang & Ngamsiriudom, 2015) (Lin & Huang, 2015). Advertisement about price reduction on social media also induces customers to airline travel (Yasin & David, 2014). Advertisements and sales promotions done by websites also influence the purchase behaviour of airline customers (Mahendra, 2014)

4.6.5 E-Payment Expertise (EPE)

Browsing skills may lead to E-payment skills. But it may not be valid for all. The ability to make online purchases also influences purchasing intentions (Bigné et al., 2010). In addition, the level of previous experience with the online medium affects the perceived risk and trust (Qalati et al., 2021).

4.6.6 Price Saving Orientation (PSO)

Awareness of price dynamics helps travellers to plan their air travel in a cost-effective manner. Hence the purchase behaviour of a customer with price saving orientation may be influenced by his awareness of the characteristics of dynamic pricing (Escobar-Rodríguez & Carvajal-Trujillo, 2013). Price-saving orientation refers to the mindset or behaviour of individuals that prioritize saving money when making purchasing decisions (Poundstone, 2010). The Price-Saving Orientation is not only linked to consumer patience and their ability to delay gratification, which can be measured in how they estimate discount functions (Dholakia et al., 2016).

4.6.7 Service Quality Perception (SQP)

Customer expectations of service quality lead to satisfaction and brand loyalty (Hussain et al., 2015) (Namukasa, 2013). Yang

argues that service quality is crucial in impelling buyer behaviour (Saha & Theingi, 2009) rather than the price (Yang et al., 2012). Service quality positively influences the behavioural intentions of customers (Park et al., 2004) (Yasvari et al., 2012). Holiday travellers have the least expectations of service dimensions but are driven mainly by fare (Jiang, 2013). Chou observed that service failure and service recovery influence loyalty which is reflected through comments, word of mouth and commendation (Chou, 2015). Expected and augmented benefits of a service can influence customers' attitudes towards it (Wang & Hsu, 2016).

Based on the literature, the researcher developed 12 constructs and 46 variables for which the questionnaire was developed. Table 6.3 shows the measurement items of the model for determining the antecedents of attitudes towards airline price dynamics.

Table 4.3

Constructs and Variables

Constructs	Code	Indicator Variables
Hedonic Motivation	HDM1	Entertainment
	HDM2	Seeking Information
	HDM3	Enjoyment
	HDM4	Visual Appeal
Internet Browsing Expertise	IBE1	Expertise in Handling Internet
	IBE2	Easiness in Using Booking Websites
	IBE3	The Habit of Using Search Engines
	IBE4	Expertise in Searching and Finding Finding an Authentic Source
	WMI1	Peer Group

Word of Mouth Information	WMI2	Family Members
	WMI3	Expert Groups
Information from Airline Advertisement	IAA1	E-mails from Airlines
	IAA2	Offers from Airlines
	IAA3	Offers of Frequent Flier Programmes
	IAA4	News About Low Cost Carriers
E-Payment Expertise	EPE1	Expertise in Electronic Payments
	EPE2	Manageability of Security Issues
	EPE3	Preference for E-Payments
Price Saving Orientation	PSO1	Flexible Plan for Low Priced Ticket
	PSO2	Price Comparison Before Booking
	PSO3	Make Use of Frequent Flier Programmes
	PSO4	Advance Planning and Booking
Service Quality Perception	SQP1	Brand Preference
	SQP2	Time Reliability Perception
	SQP3	Staff Behaviour Perception
	SQP4	Overall Service Perception
	SQP5	Overall Reliability Perception
Awareness of Airline Price Dynamics	APD1	Price Fluctuates with the Time of Booking
	APD2	Price Increases as Departure Date is Closer
	APD3	Price is High During Holidays
	APD4	Prices are Not Uniform for the Same Route and Class
Pre-Purchase Planning Behaviour	PPB1	Comparison of Prices
	PPB2	Advance Planning for Advance Booking
	PPB3	Booking Flexible Tickets

	PPB4	Adjusting Travel Plan to Ensure Low Price
Post-Purchase Dissonance	PPD1	Searching After Booking
	PPD2	Price Comparison
	PPD3	Positive Reactions on Social Media
	PPD4	Negative Reactions on Social Media
Positive Attitude	PAP1	Dynamic Pricing Offers Low Priced Tickets
	PAP2	Dynamic Pricing Ensures Tickets in Emergency
	PAP3	Dynamic Pricing Helps in the Development of the Civil Aviation Market
Negative Attitude	NAP1	Dynamic Pricing Leads to Exploitation
	NAP2	Dynamic Pricing is Always Favourable to the Airline Company
	NAP3	Low Priced Tickets are Very Few
	NAP4	Sometimes Prices go up to an Unaffordable Level

Source: Primary Data

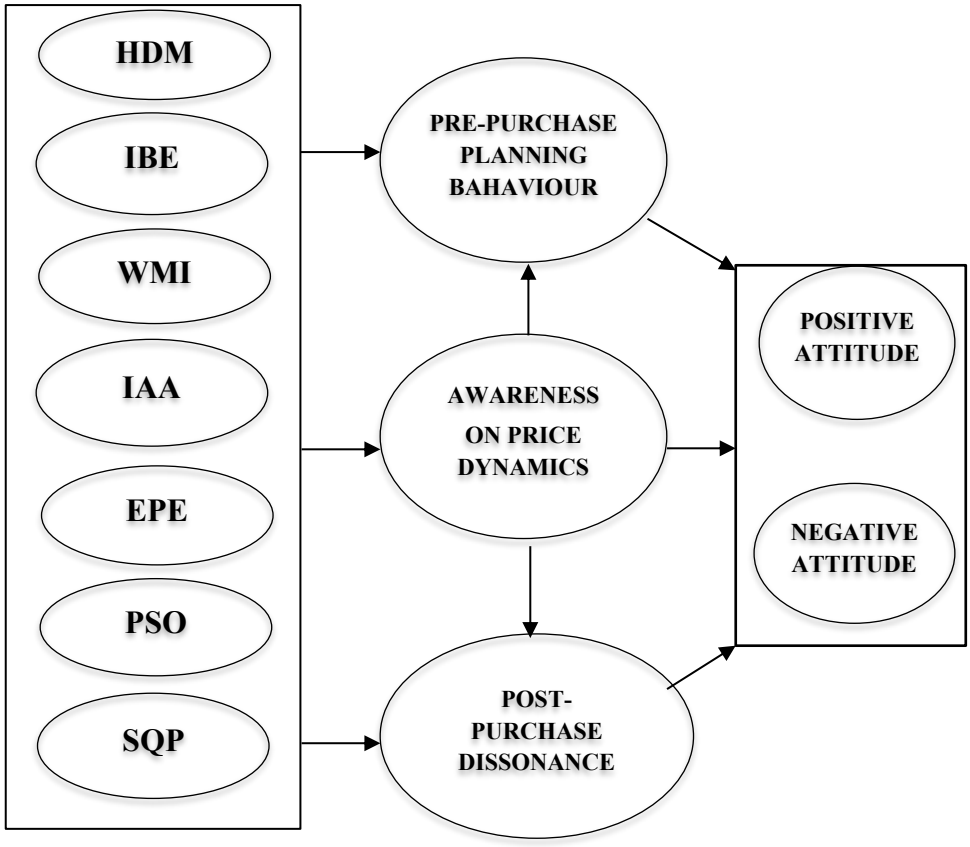
With the support of the literature, the researcher assumes that pre-purchase planning behaviour, awareness of price dynamics, and post-purchase dissonance directly influence positive and negative attitudes towards airline price dynamics. Figure 4.1 show the conceptual model based on the literature.

The conceptual model has 12 constructs and 46 variables. The construct Hedonic Motivation, Internet Browsing Expertise, Information from Airline Advertisement, Price Saving Orientation, Awareness of Price Dynamics, Pre-Purchase Planning Behaviour, Post-Purchase Dissonance, and Negative Attitude towards Price

Dynamics have four variables each. Word of Mouth Information, E-Payment Expertise, and Positive Attitude towards Price Dynamics are composed of three variables each. Five variables indicate Service Quality Perception.

Figure 4.1

Conceptual Model: Determinants of Attitudes Towards Price Dynamics



Source: Compiled by the Researcher

4.7 Measurement Model- Testing and Validation

Validation of the exploratory measurement model was done with the help of PLS-SEM. The relationship between the latent

constructs and their indicator variables is described in the outer model (Measurement model). It helps to understand the fitness of the model with actual data. Internal Consistency, Convergent Validity, and Discriminant Validity are assessed and evaluated to validate the measurement model. Internal consistency is tested with the statistics of Cronbach's Alpha and Composite Reliability (Hair et al., 2012). Convergent validity is tested with Standardised path loadings, Rho_A, and Average Variance Extracted (Gefen et al., 2000). The AVE is the portion of the data explained by each construct, respective to their groups of variables; on average, the variables correlate positively with their respective constructs (Ringle et al., 2014). Path loadings and weights provide a set of criteria for evaluating the reliability of indicators in the model (Garson, 2016). Discriminant validity is tested with Fornell-Larcker Criterion (Fornell & Larcker, 1981). Table 4.4 gives the threshold limits fixed as per the cited literature.

Table 4.4

Evaluation Criterion - Measurement Model

Internal Consistency	**Threshold**
Cronbach's Alpha	≥ 0.7
Composite Reliability	≥0.70
Convergent Validity	
Outer Loadings	≥0.70
Average variance Extracted	≥0.50
Rho_A	>0.50

Discriminant Validity

Fornell-Larcker Criterion	Square root of each construct's AVE should be higher than its highest correlation with any other construct (Fornell & Larcker, 1981)

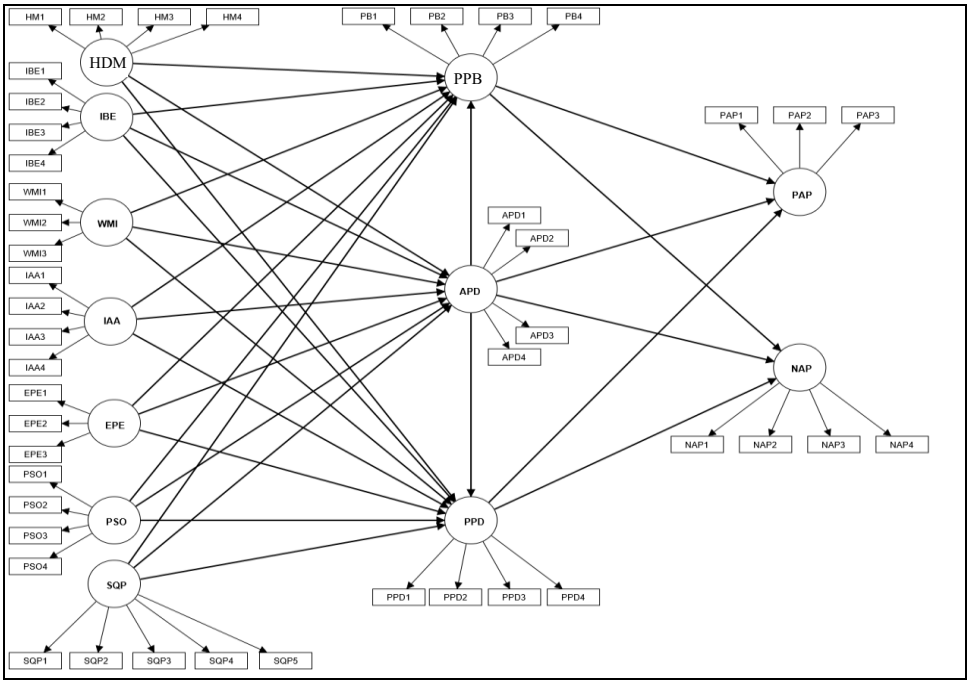
Source: Compiled by the Researcher

4.7.1 Model Specification

The variables (measures) are arranged to form the related constructs (Latent variable). Figure 4.2 show the measurement model graphically.

Figure 4.2

Proposed Model: Determinants of Attitudes Towards Price Dynamics



Source: Primary Data, Smart PLS Output

In the figure, indicator variables are represented by rectangles (outer model), and the corresponding ellipses through the arrow represent the constructs (inner or structural model). All endogenous latent variables are connected through an incoming arrow from the other latent variable. The figure analyses the relationship between observed indicator variables and latent variables.

4.7.2 Measurement Fit for Reflective Models

Path (outer) loadings measure the absolute correlations between a construct and each of its manifest variables (Henseler et al., 2009). The typical threshold of 0.70 and above for outer model loading is followed (Hair et al., 2012). Composite reliability is equal to or greater than 0.70 for an adequate model for confirmatory purposes (Henseler et al., 2009). The conventional cut-off of Cronbach's Alpha is set at 0.7 to check the convergent validity of latent variable indicators (Garson, 2016). The minimum cut-off value for average variance extracted (AVE), the test of both convergent and divergent validity, is established at 0.5 (Martínez-lópez et al., 2016)(Henseler et al., 2009). AVE reflects the average communality for each latent factor in a reflective model. It can also establish discriminant validity by the Fornell–Larcker criterion (Garson, 2016). For any latent variable, the square root of AVE should be higher than its correlation with any other latent variable (Fornell & Larcker, 1981)(Gefen et al., 2000).

The exploratory measurement model is validated through the PLS-SEM procedure. The SEM model was run on the Smart PLS. Path Weighting Scheme was used as the PLS Algorithm setting since it is adequate for the scheme for SEM (Ringle et al., 2014).

Convergent and Discriminant Validities were examined for Fornell and Larcker criteria for this purpose. Table 4.5 shows the results.

Table 4.5

Construct Validity and Reliability

Constructs	Variables	Internal Consistency		Convergent Validity		
		α	CR	OL	Rho_A	AVE
Hedonic Motivation	HDM1	0.813	0.876	0.802	0.830	0.640
	HDM2			0.881		
	HDM3			0.869		
	HDM4			0.923		
Internet Browsing Expertise	IBE1	0.893	0.925	0.820	0.911	0.757
	IBE2			0.877		
	IBE3			0.869		
	IBE4			0.914		
Word of Mouth Information	WMI1	0.869	0.922	0.763	0.876	0.799
	WMI2			0.951		
	WMI3			0.955		
Information from Airline Advertisement	IAA1	0.914	0.940	0.885	0.920	0.797
	IAA2			0.802		
	IAA3			0.938		
	IAA4			0.938		
E-Payment Expertise	EPE1	0.796	0.881	0.841	0.800	0.712
	EPE2			0.793		
	EPE3			0.894		
Price Saving Orientation	PSO1	0.822	0.879	0.838	0.869	0.646
	PSO2			0.801		

	PSO3			0.701		
	PSO4			0.872		
Service Quality Perception	SQP1	0.915	0.935	0.761	0.943	0.742
	SQP2			0.882		
	SQP3			0.886		
	SQP4			0.901		
	SQP5			0.871		
Awareness of Airline Price Dynamics	APD1	0.795	0.867	0.790	0.800	0.619
	APD2			0.803		
	APD3			0.820		
	APD4			0.732		
Pre-Purchase Planning Behaviour	PPB1	0.752	0.843	0.701	0.798	0.576
	PPB2			0.820		
	PPB3			0.701		
	PPB4			0.870		
Post-Purchase Dissonance	PPD1	0.828	0.885	0.706	0.855	0.659
	PPD2			0.795		
	PPD3			0.881		
	PPD4			0.854		
Positive Attitude	PAP1	0.866	0.908	0.806	0.882	0.712
	PAP2			0.818		
	PAP3			0.907		
Negative Attitude	NAP1	0.804	0.882	0.804	0.879	0.714
	NAP2			0.852		
	NAP3			0.898		
	NAP4			0.817		

Source: Primary Data, Smart PLS Output

Table 4.5 shows the selected variables with prescribed threshold limits. Discriminant Validity of the SEM, which indicates the constructs or latent variables are independent of one another, was also measured and examined as per Fornell - Larcker approach. Table 6.6 shows the result.

Table 4.6

Discriminant Validity: Fornell -Larcker Criterion

	APD	EPE	HDM	IAA	IBE	NAP	PAP	PPB	PPD	PSO	SQP	WMI
APD	**0.787**											
EPE	0.373	**0.844**										
HM	0.328	0.436	**0.800**									
IAA	0.363	0.246	0.462	**0.893**								
IBE	0.398	0.713	0.387	0.260	**0.870**							
NAP	0.178	0.110	0.282	0.307	0.211	**0.844**						
PAP	0.127	0.159	0.261	0.151	0.099	-0.026	**0.845**					
PB	0.540	0.376	0.419	0.441	0.434	0.281	0.102	**0.759**				
PPD	-0.171	0.049	0.287	0.187	-0.004	0.323	0.182	0.119	**0.812**			
PSO	0.438	0.272	0.405	0.805	0.327	0.316	0.129	0.789	0.171	**0.803**		
SQP	0.249	0.272	0.373	0.224	0.223	0.083	0.279	0.181	0.261	0.153	**0.861**	
WMI	0.405	0.329	0.343	0.300	0.242	0.166	0.190	0.339	-0.017	0.337	0.202	**0.894**

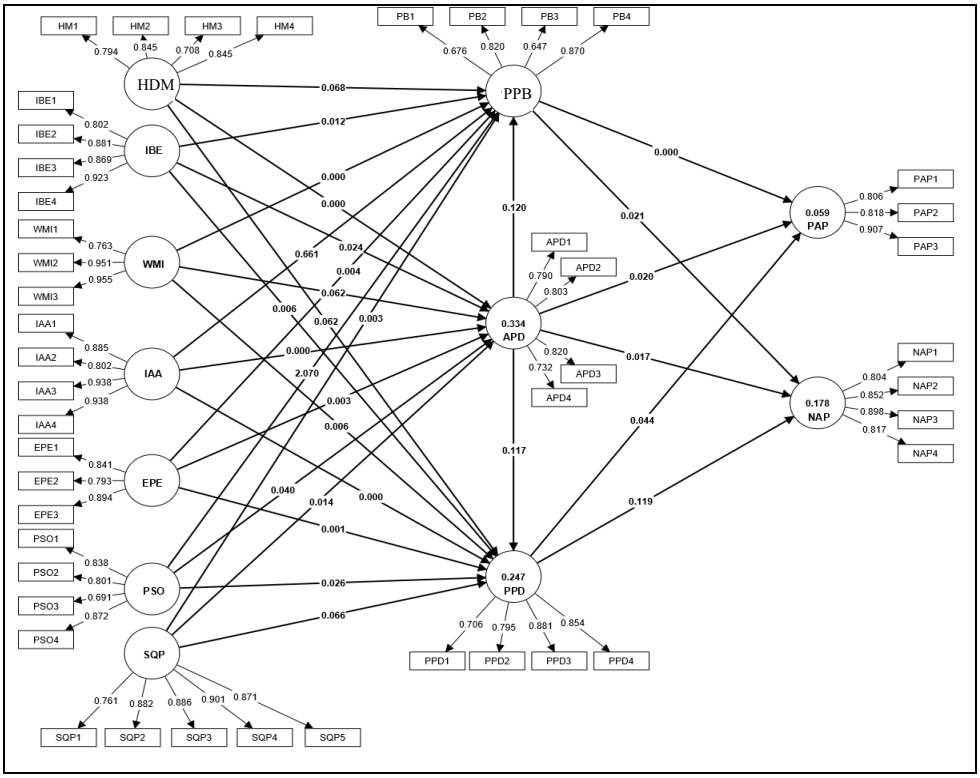
Source: Primary Data, Smart PLS Output

The square root of the average variance extracted is given as diagonal elements. To ensure discriminant validity, the AVE of each latent variable should be higher than the squared correlations with all other latent variables (Henseler et al., 2009). From the table, it is clear that discriminant validity is adequate for the model. After ensuring the parameters of path loadings, CR, AVE and CA, the final

model is given in figure 4.3. The explanatory power of the model (R^2) is shown in the ellipse.

Figure 4.3

Attitudes Towards Price Dynamics: Measurement Model



Source: Primary Data, Smart PLS Output

The figure provides a comprehensive representation of the measurement model, involving 46 observed variables grouped into 12 constructs. The seven latent constructs are clearly identified, each encapsulating a set of observed variables. The constructs of awareness, pre-purchase planning behaviour, and post-purchase dissonance behaviour serve as key drivers in the model. They represent latent variables that capture the underlying dimensions of consumer behaviour. The arrows connecting the observed variables

(indicators) to their respective constructs reflect the loadings, indicating the strength and direction of the relationships. Solid lines represent positive paths, while dashed lines may indicate negative paths. Variables are grouped under constructs, illustrating how they contribute to the overall measurement of each latent variable. The pathways leading to positive and negative Attitudes indicate the flow of influence from the three behavioural constructs, shaping the overall attitudes of air passengers towards dynamic pricing.

4.8 Conclusion

The chapter systematically explores the multifaceted dimensions of the attitudes of airline passengers, employing Structural Equation Modelling, a robust methodology and statistical techniques to develop and test a measurement model. The contextual background for the subsequent analyses, including the demographic characteristics of respondents, is detailed for setting the stage for a thorough investigation into the attitudes of airline passengers towards airline price dynamics, categorizing them into positive and negative perspectives. The determinants influencing these attitudes on airline price dynamics are systematically explored, covering factors such as awareness of airline dynamic pricing, pre-purchase planning behaviour, and post-purchase dissonance. A set of attitude-independent variables that play a pivotal role in shaping the perspectives of passengers are discussed in detail. This includes hedonic motivation, internet browsing expertise, word of mouth information, information from airlines' advertisements, e-payment expertise, price-saving orientation, and service quality perception.

Model specification is rigorously addressed, ensuring clarity and precision in the subsequent analyses. The evaluation of measurement

fit for reflective models is undertaken, providing a robust validation process for the established model. The measurement model satisfies the criterion of thresholds. Internal consistency of the model is ensured since Cronbach's Alpha, and composite reliability are more than 0.70. Since outer loadings are greater than 0.70 and the average variance extracted and Rho_A are 0.50, the model has convergent validity. Furthermore, the model satisfies discriminant validity as per the Fornell-Larcker Criterion. Therefore, the researcher proceeds with further analysis of the model.

Chapter 5

Attitudes on Airline Price Dynamics – Structural Model

5.1 Introduction

The measurement model discussed in chapter six is developed as a structural model in this chapter. It deals with the relationship between the constructs and their predictive capabilities. It outlines how the attitude of passengers on price dynamics is formed. Smart PLS software (Ringle et al., 2022) is widely used in this type of data analysis. This software was used by Niu to analyse his data from 442 passengers who have experienced air travel in the past three years to propose a model of the passengers' views on airline environmental protection activities (Niu et al., 2016). It was also used to develop a model of consumers' perception of price fairness and price unfairness (Katyal et al., 2019). Models of the antecedents of online purchase behaviour were developed using the same software (Escobar & Carvajal, 2013) (Silva et al., 2019).

5.2 Assessment of Structural Model

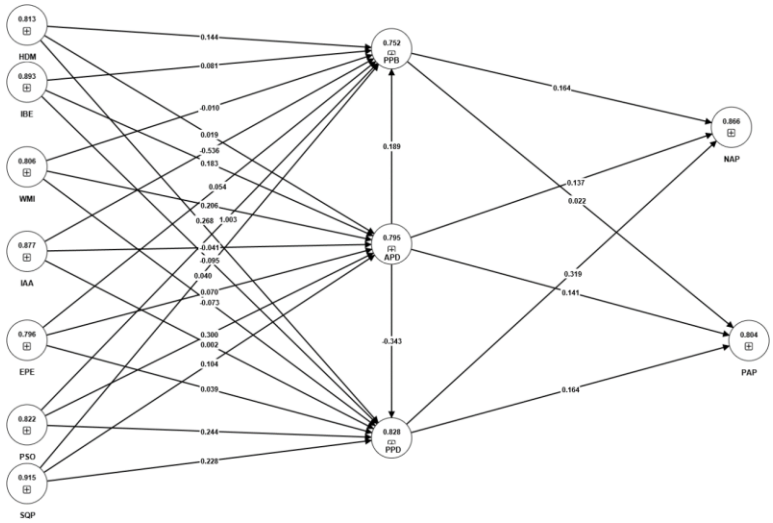
Henseler suggests four criteria for assessing structural models: R-square of latent variables, estimates of path coefficients, effect size f^2, and prediction relevance Q^2 (Henseler et al., 2004). Garson suggests the absence of multicollinearity and statistical significance tests of the criteria through bootstrapping (Garson, 2016). Bootstrapping, a computer intensive non parametric method that calculates the standard error from random sampling. Walters proved that bootstrap methods produce results similar to conventional statistical methods (Walters & Campbell, 2004). This method is a collection of sample re-use technique designed to estimate standard errors and confidence intervals (Stine, 1989). The t-values for PLS estimates are usually generated using a non-parametric bootstrap technique (Willaby et al., 2014). Statistical significance is also

computed for all estimates through this process of PLS estimation (Garson, 2016).

The measurement model discussed in chapter six satisfied the criterion for measurement fit. Moreover, the criterion of the reflective measurement models, such as composite reliability, indicator reliability, average variance extracted, Fornell–Larcker criterion, and cross-loadings suggested by Henseler (Henseler et al., 2004), was satisfied by the model. Hence the model is suitable for the examination of structural fit. Bias-Corrected and Accelerated (BCA) Bootstrap is a stable method producing relatively narrow confidence intervals (Garson, 2016). This method also adjusts bias and skewness in the estimates. The researcher used two-tailed tests at a 5% significance level in this analysis. Figure 5.1 show the structural model showing the antecedents of attitudes towards airline price dynamics.

Figure 5.1

Structural Model: Antecedents of Attitudes Towards Airline Price Dynamics



Source: Primary Data; Developed through Smart PLS

In figure 5.1, values inside the ellipse show Cronbach's alpha values. In addition, path coefficients are shown on the corresponding paths.

5.2.1 Collinearity Analysis

Examining the relative importance of predictor variables in the structural (inner) model is impossible if multicollinearity is present. Therefore, the model should be free from this multicollinearity. A Variance Inflation Factor (VIF) criterion is used to assess the multicollinearity in the inner model. Researchers suggest a VIF of less than ten to work with (Henseler et al., 2004), (Katyal et al., 2019). Garson suggests not to work with it if VIF is greater than five (>5) (Garson, 2016). Table 5.1 show the VIF values of predictor variables.

Table 5.1

Collinearity Analysis of the Structural Model

Construct	Code	Variable	VIF
Hedonic Motivation	HDM1	Entertainment	1.833
	HDM2	Seeking Information	1.893
	HDM3	Enjoyment	1.741
	HDM4	Visual Appeal	2.158
Internet Browsing Expertise	IBE1	Expertise in Handling Internet	2.027
	IBE2	Easiness in Using Booking Websites	2.758
	IBE3	The Habit of Using Search Engines	2.878
	IBE4	Expertise in Searching and Finding an Authentic Source	3.899
Word of Mouth Information	WMI1	Peer Group	1.345
	WMI2	Family Members	2.681
	WMI3	Expert Groups	2.694

Information from Airline Advertisement	IAA1	E-mails from Airlines	3.208
	IAA2	Offers from Airlines for Cost Reduction	1.563
	IAA3	Offers of Frequent Flier Programmes	3.384
	IAA4	News About Low-Cost Carriers	3.186
E-Payment Expertise	EPE1	Expertise in Electronic Payments	1.886
	EPE2	Manageability of Security Issues	1.480
	EPE3	Preference for E-Payments	2.178
Price Saving Orientation	PSO1	Flexible Plan for Low-Priced Ticket	1.739
	PSO2	Price Comparison Before Booking	1.970
	PSO3	Make Use of Frequent Flier Programmes	1.666
	PSO4	Advance Planning and Booking	2.207
Service Quality Perception	SQP1	Brand Preference	2.109
	SQP2	Time Reliability Perception	2.724
	SQP3	Staff Behaviour Perception	2.701
	SQP4	Overall Service Perception	3.220
	SQP5	Overall Reliability Perception	2.736
Awareness of Airline Price Dynamics	APD1	Price Fluctuates with the Time of Booking	1.611
	APD2	Price Increases as Departure Date is Closer	1.662
	APD3	Price is High During Holidays	1.742
	APD4	Prices are Not Uniform for the Same Route and Class	1.470
Pre-Purchase Planning Behaviour	PPB1	Comparison of Prices	1.279
	PPB2	Advance Planning for Advance Booking	1.804
	PPB3	Booking Flexible Tickets	1.280
	PPB4	Adjusting Travel Plan to Ensure Low Price	1.885
	PPD1	Searching After Booking	1.665

Post-Purchase Dissonance	PPD2	Price Comparison	1.938
	PPD3	Positive Reaction on Social Media	2.702
	PPD4	Negative Reaction on Social Media	2.548
Positive Attitude	PAP1	Dynamic Pricing Offers Low Priced Tickets	1.599
	PAP2	Dynamic Pricing Ensures Tickets in Emergency	1.810
	PAP3	Dynamic Pricing Helps in the Development of the Civil Aviation Market	1.878
Negative Attitude	NAP1	Dynamic Pricing Leads to Exploitation	2.101
	NAP2	Dynamic Pricing is Always Favourable to the Airline Company	2.453
	NAP3	Low-priced Tickets are very few	2.614
	NAP4	Sometimes Prices Go up to Unaffordable Level	1.765

Source: Primary Data

As indicated in Table 5.1, the VIF values are within the threshold of <5. Hence the multicollinearity is within the tolerance range to work with the structural model. Accordingly, the researcher proceeds with the assessment of path coefficients.

5.2.2 Assessment of Path Coefficients *(β)*

Structural path coefficients (loadings) are the path weights connecting the factors. This loading provides the hypothetical relationship among the connected factors. Path loadings, being standardised beta values, may vary from -1 to +1. These loadings do not assume a normal distribution. Hence instead of asymptotic significance levels, bootstrapped significance coefficients are employed (Garson, 2016). The present model tested the following hypotheses:

$H_{1\,1}$ Hedonic Motivation significantly influences the Awareness of Airline Price Dynamics.

$H_{1\,2}$ Hedonic Motivation significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\,3}$ Hedonic Motivation significantly influences the Post-Purchase Dissonance Behaviour.

$H_{1\,4}$ Internet Browsing Expertise significantly influences the Awareness of Airline Price Dynamics.

$H_{1\,5}$ Internet Browsing Expertise significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\,6}$ Internet Browsing Expertise significantly influences the Post-Purchase Dissonance Behaviour.

$H_{1\,7}$ Word of Mouth Information significantly influences the Awareness of Airline Price Dynamics.

$H_{1\,8}$ Word of Mouth Information significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\,9}$ Word of Mouth Information significantly influences the Post-Purchase Dissonance Behaviour.

$H_{1\,10}$ Information from Airline Advertisements significantly influences the Awareness of Airline Price Dynamics.

$H_{1\,11}$ Information from Airline Advertisements significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\,12}$ Information from Airline Advertisements significantly influences the Post-Purchase Dissonance Behaviour.

$H_{1\,13}$ E-Payment Expertise significantly influences the Awareness of Airline Price Dynamics.

$H_{1\ 14}$ E-Payment Expertise significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\ 15}$ E-Payment Expertise significantly influences the Post-Purchase Dissonance Behaviour.

$H_{1\ 16}$ Price Saving Orientation significantly influences the Awareness of Airline Price Dynamics.

$H_{1\ 17}$ Price Saving Orientation significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\ 18}$ Price Saving Orientation significantly influences the Post-purchase Dissonance Behaviour.

$H_{1\ 19}$ Service Quality Perception significantly influences the Awareness of Airline Price Dynamics.

$H_{1\ 20}$ Service Quality Perception significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\ 21}$ Service Quality Perception significantly influences the Post-Purchase Dissonance Behaviour.

$H_{1\ 22}$ Awareness of Price Dynamics significantly influences the Pre-Purchase Planning Behaviour.

$H_{1\ 23}$ Awareness of Price Dynamics significantly influences the Post-Purchase Dissonance Behaviour.

$H_{1\ 24}$ Awareness of Price Dynamics significantly influences the Negative Attitude towards Airline Price Dynamics.

$H_{1\ 25}$ Awareness of Price Dynamics significantly influences the Positive Attitude towards Airline Price Dynamics.

$H_{1\ 26}$ Pre-Purchase Planning Behaviour significantly influences the Positive Attitude towards Airline Price Dynamics.

$H_{1\ 27}$ Pre-Purchase Planning Behaviour significantly influences the Negative Attitude towards Airline Price Dynamics.

$H_{1\ 28}$ Post-Purchase Dissonance Behaviour significantly influences the Negative Attitude towards Airline Price Dynamics.

$H_{1\ 29}$ Post-Purchase Dissonance Behaviour significantly influences the Positive Attitude towards Airline Price Dynamics.

The commonly used critical t-values for two-tailed tests are >1.96 at a 5% significance level (Hair et al., 2017). Table 5.2 shows the test results.

Table 5.2

Structural Model: Path Coefficients

Hypothesis	Constructs	Path co-efficients	T statistics	P values	Decision
$H_{1\ 1}$	HDM -> APD	0.017	0.395	**>0.05**	Not Supported
$H_{1\ 2}$	HDM -> PPB	0.144	3.966	<0.05	**Supported**
$H_{1\ 3}$	HDM -> PPD	0.327	6.340	<0.05	**Supported**
$H_{1\ 4}$	IBE -> APD	0.182	3.839	<0.05	**Supported**
$H_{1\ 5}$	IBE -> PPB	0.081	1.949	**>0.05**	Not Supported
$H_{1\ 6}$	IBE -> PPD	-0.090	1.574	**>0.05**	Not Supported
$H_{1\ 7}$	WMI -> APD	0.205	5.151	<0.05	**Supported**

$H_{1\ 8}$	WMI -> PPB	-0.010	0.391	**>0.05**	Not Supported
$H_{1\ 9}$	WMI -> PPD	-0.058	1.082	**>0.05**	Not Supported
$H_{1\ 10}$	IAA -> APD	-0.041	0.579	**>0.05**	Not Supported
$H_{1\ 11}$	IAA -> PPB	-0.537	11.795	<0.05	**Supported**
$H_{1\ 12}$	IAA -> PPD	0.049	0.770	**>0.05**	Not Supported
$H_{1\ 13}$	EPE -> APD	0.069	1.402	**>0.05**	Not Supported
$H_{1\ 14}$	EPE -> PPB	0.054	1.147	**>0.05**	Not Supported
$H_{1\ 15}$	EPE -> PPD	0.060	1.010	**>0.05**	Not Supported
$H_{1\ 16}$	PSO -> APD	0.301	4.653	<0.05	**Supported**
$H_{1\ 17}$	PSO -> PPB	1.004	20.47	<0.05	**Supported**
$H_{1\ 18}$	PSO -> PPD	0.198	3.053	<0.05	**Supported**
$H_{1\ 19}$	SQP -> APD	0.112	3.139	<0.05	**Supported**
$H_{1\ 20}$	SQP -> PPB	0.042	1.439	**>0.05**	Not Supported
$H_{1\ 21}$	SQP -> PPD	0.247	4.575	<0.05	**Supported**
$H_{1\ 22}$	APD -> PPB	0.188	6.013	<0.05	**Supported**
$H_{1\ 23}$	APD -> PPD	-0.308	5.905	<0.05	**Supported**
$H_{1\ 24}$	APD -> NAP	0.135	2.407	<0.05	**Supported**
$H_{1\ 25}$	APD -> PAP	0.136	2.244	<0.05	**Supported**
$H_{1\ 26}$	PPB -> NAP	0.164	2.561	<0.05	**Supported**
$H_{1\ 27}$	PPB -> PAP	0.026	0.342	**>0.05**	Not Supported
$H_{1\ 28}$	PPD -> NAP	0.317	6.504	<0.05	**Supported**
$H_{1\ 29}$	PPD -> PAP	0.153	2.134	<0.05	**Supported**

Source: Primary Data

Table 5.2 shows that Awareness of Airline Price Dynamics (APD), Pre-Purchase Planning Behaviour (PPB), and Post-Purchase Dissonance Behaviour (PPD) have a significant influence on Negative Attitudes towards Price Dynamics (NAP). It is also evident that there is a positive relationship. On the other hand, PPB has no significant influence on Positive Attitudes towards Airline Price Dynamics (PAP); p>0.05**.** PPD influence NAP and PAP significantly.

It is also evident that APD influences both PPB and PPD. There is a negative relationship between APD and PPD (***β*** being negative*)*. APD is influenced significantly by Internet Browsing Expertise (IBE), Word of Mouth Information (WMI), Price Saving Orientation (PSO), and Service Quality Perception (SQP). PPB is significantly influenced by Hedonic Motivation (HDM), Information from Airline Advertisements (IAA), Price Saving Orientation (PSO), and APD. HDM, PSO, SQP, and APD significantly influence PPD.

Hence the alternative hypotheses 28, 29, 30, 33, 37, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 54, and 55 are accepted since P <0.05. On the other hand, alternative hypotheses of 27, 31, 32, 34, 35, 36, 38, 39, 40, 41, 46, and 53 are rejected since p>0.05.

5.2.3 R-Squared (R^2)

The coefficient of determination ($R^{2)}$ represents the variance explained in each endogenous construct and measures the model's explanatory power or in-sample predictive power (Ringle et al., 2021). The R2 ranges from 0 to 1. A higher value indicates a greater predictive power. For example, R^2 values of 0.67, 0.33, or 0.19 for endogenous latent variables in the inner path model are described as substantial, moderate, or weak (Chin, 1998). But acceptable R^2

values are based on the research context; an R^2 value as low as 0.10 is considered satisfactory (Ringle et al., 2021). R^2 values of 0.75, 0.50, and 0.25 can be considered substantial, moderate, and weak, respectively, in many social science disciplines (Jr. et al., 2021). Table 5.3 gives the endogenous latent variables' coefficient of determination (R2).

Table 5.3

Structural Model: R^2 Values

Construct	R-square	R-square adjusted
Awareness of Price Dynamics	0.328	0.317
Pre-Purchase Planning Behaviour	0.802	0.798
Post-Purchase Dissonance Behaviour	0.246	0.231
Positive Attitude to Price Dynamics	0.059	0.052
Negative Attitude to Price Dynamics	0.178	0.172

Source: Primary Data

R^2 values of the model range from 5.9 to 80.2 percent. The model well explains the role of awareness, pre-purchase planning behaviour, and post-purchase dissonance behaviour in determining the attitudes towards airline price dynamics. The comparative law R^2 values prove the ethical dilemma faced in forming the attitude in a complex situation which leaves chances of relative advantages and disadvantages. Rather than predictive relevance, the inference derived from the law values is socially relevant. Moreover, it supports the argument that acceptable R^2 values should be based on the research context (Ringle et al., 2021).

5.2.4 F-Squared (f^2)

The effect size (f^2) considers the relative impact of a particular exogenous latent variable on an endogenous latent variable by means of changes in the R^2 (Hair et al., 2012). It assesses how the removal of a selected predictor construct affects an endogenous construct's R^2 value (Ringle et al., 2021). The threshold of f^2 values is 0.02, 0.15, and 0.35, respectively, representing small, medium, and large effects (Cohen, 1998). Effect size values of less than 0.02 indicate no effect (Hair et al., 2017).

Table 5.4

Structural Model: f^2 Values

Constructs	f^2	T statistics	P values	Decision
HDM→ APD	0.001	0.113	**>0.05**	Not Supported
HDM → PPB	0.060	1.823	**>0.05**	Not Supported
HDM → PPD	0.061	2.640	<0.05	**Supported**
IBE → APD	0.024	1.807	**>0.05**	Not Supported
IBE → PPB	0.009	0.913	**>0.05**	Not Supported
IBE → PPD	0.006	0.800	**>0.05**	Not Supported
WMI → APD	0.052	2.344	<0.05	**Supported**
WMI → PPB	0.002	0.091	**>0.05**	Not Supported
WMI → PPD	0.006	0.611	**>0.05**	Not Supported
IAA → APD	0.001	0.179	**>0.05**	Not Supported
IAA → PPB	0.582	5.144	<0.05	**Supported**
IAA → PPD	0.001	0.001	**>0.05**	Not Supported
EPE → APD	0.003	0.637	**>0.05**	Not Supported
EPE → PPB	0.005	0.494	**>0.05**	Not Supported

EPE → PPD	0.001	0.233	**>0.05**	Not Supported
PSO → APD	0.048	2.080	<0.05	**Supported**
PSO → PPB	1.930	5.309	<0.05	**Supported**
PSO → PPD	0.027	1.990	<0.05	**Supported**
SQP → APD	0.013	1.324	**>0.05**	Not Supported
SQP → PPB	0.003	0.625	**>0.05**	Not Supported
SQP → PPD	0.066	2.028	<0.05	**Supported**
APD → PPB	0.111	2.930	<0.05	**Supported**
APD → PPD	0.120	3.380	<0.05	**Supported**
APD → NAP	0.017	1.141	**>0.05**	Not Supported
APD → PAP	0.021	1.112	**>0.05**	Not Supported
PPB → NAP	0.021	1.189	**>0.05**	Not Supported
PPB → PAP	0.001	0.054	**>0.05**	Not Supported
PPD → NAP	0.119	2.836	<0.05	**Supported**
PPD → PAP	0.044	1.120	**>0.05**	Not Supported

Source: Primary Data

The values as per Table 5.4 give the following impacts: Awareness of Price Dynamics has no impact on Negative Attitude (f^2<0.02). Though it has a small impact on Positive Attitude (f^2>0.02), the impact is not statistically significant (p<0.05). But it has a medium impact on PPB and PPD (f^2>0.15, p>0.05). PPB has a small impact (f^2>0.02) on Negative Attitude, but not statistically significant (p<0.05). On the other hand, neither PPB nor PPD has a significant effect on Positive attitude (f^2<0.02).

IAA and PSO have a large significant effect on PPB (f^2>0.35). HDM and SQP have a significant but small effect (f^2>0.15) on PPD. WMI

and PSO influence APD with a small and significant effect (f^2>0.15). APD has a small and significant effect on PPB (f^2>0.15).

5.2.5 Q-Squared (Q^2)

This measure of Q^2 is an indicator of the model's out-of-sample predictive power or predictive relevance (Hair et al., 2017). In the structural model, Q^2 values larger than zero (Q^2>0) for a specific reflective endogenous latent variable indicate the path model's predictive relevance for a particular dependent construct (Ringle et al., 2014). More precisely, as an alternative perspective on the results, Q^2 represents a synthesis of cross-validation and function fitting for PLS-SEM applications (Hair et al., 2012). A positive Q^2 predict value indicates that the PLS path model's prediction error is smaller than the prediction error given by the naïve benchmark (Shmueli et al., 2019). Q^2 greater than 0 means that the PLS-SEM model is predictive of the given endogenous variable under scrutiny (Garson, 2016).

Mean absolute error (MAE) and root mean squared error (RMSE) are the prediction statistics that quantify the amount of prediction error derived while assessing the model's predictive power using PLS predict. MAE measures the average magnitude of the errors in a set of predictions, and RMSE is defined as the square root of the average of the squared differences between the predictions and the actual observations (Hair et al., 2020). A lower RMSE or MAE indicates more predictive power of the model (Bhadra & Kee, 2008) (Danks & Ray, 2018). When none of the dependent construct indicators has higher RMSE or MAE prediction errors compared to the naïve LM benchmark, the model has high predictive power

(Ringle et al., 2021). The predictive relevance of the model as per Q^2 values is given in Table 5.5.

Table 5.5

Structural Model: Q^2 Values

Construct	Q^2predict	RMSE	MAE
APD	0.300	0.856	0.654
NAP	0.089	0.960	0.755
PAP	0.058	0.977	0.780
PPB	0.768	0.486	0.364
PPD	0.121	0.942	0.762

Source: Primary Data

As per Table 5.5, the value shows the model has a predictive relevance since the values are within the acceptable range.

5.3 Conclusion

This chapter examined the testing and validation of the structural model. The results show that awareness of airline price dynamics influences passengers' pre-purchase planning and post-purchase dissonance. A significant relationship is also found between post-purchase dissonance and negative attitudes. Additionally, airline advertising information affects pre-purchase planning behaviour. Overall, the chapter confirms the model's suitability in explaining relationships among key constructs and ensures a scientific, objective approach to understanding factors shaping passengers' attitudes toward airline pricing.

Chapter 6

Attitudes of Passengers on Airline Price Dynamics – An Evaluation

6.1 Introduction

This chapter analyses and interprets data collected from 409 passengers through a structured questionnaire. Cross-evaluation of the collected data with the respondent's demography is closely evaluated and tested here. In addition, cross-evaluation is also made with their frequency of travel, travel purpose, flying experience (domestic, international and both), and brand preference.

6.2 Antecedents of Attitudes Towards Airline Dynamic Pricing

Hedonic Motivation (HDM), Internet Browsing Expertise (IBE), Word of Mouth Information (WMI), Information from Airline Advertisement (IAA), E-Payment Expertise (EPE), Price Saving Orientation (PSO), Service Quality Perception (SQP) are the determinants of Awareness on Price Dynamics (APD), Pre-purchase Planning Behaviour (PPB) and Post-Purchase Dissonance (PPD) that determines the Attitudes Towards Airline Dynamic Pricing (ADP). For the collection of data, a 5-point Likert scale ranging from 1 to 5, with 1 representing strongly disagree, 2 representing disagree, 3 representing neutral response, 4 representing agree, and 5 representing strongly agree, was formulated. To establish a threshold for interpreting the mean values, the following criteria are formed:

Below 2.0: Strongly negative perception.

2.0 to 2.9: Negative perception.

3.0: Neutral perception.

3.1 to 3.9: Positive perception.

Above 4.0: Strongly positive perception.

Table 6.1 show the descriptive statistics of antecedents of airline price dynamics.

Table 6.1

Antecedents of Attitudes – Descriptive Statistics

Constructs	Code	Variables	Mean	SD
Hedonic Motivation	HDM1	Entertainment	3.12	1.189
	HDM2	Seeking Information	3.80	1.062
	HDM3	Enjoyment	3.52	1.151
	HDM4	Visual Appeal	3.67	1.025
		Construct Average	3.53	
Internet Browsing Expertise	IBE1	Expertise in Handling Internet	3.86	0.996
	IBE2	Easiness in Using Booking Websites	4.21	0.892
	IBE3	The Habit of Using Search Engines	4.21	0.985
	IBE4	Expertise in Searching and Finding an Authentic Source	4.35	0.859
		Construct Average	4.16	
Word of Mouth Information	WMI1	Peer Group	3.88	0.924
	WMI2	Family Members	3.89	1.012
	WMI3	Expert Groups	3.87	1.012
		Construct Average	3.88	
Information from Airline Advertisement	IAA1	E-mails from Airlines	3.92	1.178
	IAA2	Offers from Airlines	4.10	1.071
	IAA3	Offers of Frequent Flier Programmes	3.81	1.193
	IAA4	News About Low-Cost Carriers	3.91	1.159
		Construct Average	3.94	

E-Payment Expertise	EPE1	Expertise in Electronic Payments	3.91	1.019
	EPE2	Manageability of Security Issues	3.91	1.027
	EPE3	Preference for E-Payments	4.15	0.953
		Construct Average	3.99	
Price Saving Orientation	PSO1	Flexible Plan for Low-Priced Ticket	4.17	0.987
	PSO2	Price Comparison Before Booking	4.10	1.071
	PSO3	Make Use of Frequent Flier Programmes	3.81	1.193
	PSO4	Advance Planning and Booking	4.21	1.025
		Construct Average	4.07	
Service Quality Perception	SQP1	Brand Preference	2.87	1.268
	SQP2	Time Reliability Perception	3.40	1.231
	SQP3	Staff Behaviour Perception	3.18	1.213
	SQP4	Overall Service Perception	3.45	1.169
	SQP5	Overall Reliability Perception	3.40	1.229
		Construct Average	3.26	
Awareness of Airline Price Dynamics	APD1	Price Fluctuates with the Time of Booking	4.51	0.789
	APD2	Price Increases as Departure Date is Closer	4.47	0.773
	APD3	Price is High During Holidays	4.71	0.630
	APD4	Prices are Not Uniform for the Same Route and Class	4.42	0.816
		Construct Average	4.53	

Pre-Purchase Planning Behaviour	PPB1	Comparison of Prices	4.42	0.907
	PPB2	Advance Planning for Advance Booking	4.04	1.061
	PPB3	Booking Flexible Tickets	3.79	1.112
	PPB4	Adjusting Travel Plan to Ensure Low Price	4.17	0.987
		Construct Average	4.11	
Post-Purchase Dissonance	PPD1	Searching After Booking	2.96	1.399
	PPD2	Price Comparison	2.68	1.419
	PPD3	Positive Reaction on Social Media	1.90	1.235
	PPD4	Negative Reaction on Social Media	2.10	1.249
		Construct Average	2.41	

Source: Primary Data

As per Table 6.1, the status of most of the variables is above the average level (mean value between 3 and 4). All the variables of the construct awareness on price dynamics have a mean value of more than 4.4. Most of the construct of 'pre-purchase planning behaviour' variables also have a mean value of more than 4.0. The variables of internet browsing expertise, such as easiness in using booking websites, the habit of using search engines, and expertise in searching, have higher levels of the mean value (between 4 and 5). The variables of price-saving orientation, such as flexible plans for low-priced tickets, preference for airline offers, and planning, also have mean values of more than 4.0. One of the variables of information from airline advertisements (offers from airlines for cost reduction) also has a more than 4.0 mean value. All the variables of the construct post-purchase dissonance behaviour have a mean value of less than 3.0.

Among other constructs, only one variable (brand preference) has a less-than-average value of below 3.0. Standard Deviations are between 0.08 and 1.20 for all except awareness of price dynamics (0.63-0.82) and post-purchase dissonance (1.2-1.4).

High mean value and slightest standard deviation of 'awareness of price dynamics' show the high level of understanding of airline price dynamics among respondents. The construct post-purchase dissonance has the lowest mean value. This indicates that, on average, the respondents avoid dissonance-making activities. For instance, a few respondents search for prices once they book their tickets. Very few compare their prices with that of fellow passengers. They generally abstain from social media reactions to their prices. At the same time, some respondents are just the opposite in behaviour, though less in number. Lowest mean value of this construct with highest standard deviation indicates the difference in the opinion of respondents.

The attitudes of passengers can be negative or positive. There are chances of a neutral perspective also. The researcher proposes that these attitudes depend on three constructs; Awareness, Pre-Purchase Planning Behaviour and Post-Purchase Dissonance. The researcher also suggests that these three constructs depend on seven other constructs from the 39 variables (mentioned in Table 6.1) selected for analysis.

6.2.1 Demographic Characteristics and Antecedents of Attitude

Demographic factors such as gender, nationality, region, and occupation are analysed and tested here. Cultural and geographical differences were tested under two heads: nationality and region. Indian and Foreign were the two classifications for nationality. South

India and North India were the two segments of the region. Occupational status was tested under three heads; (a) business, religious persons and students (BRS), (b) employees, and (c) retired and others. Generally, business and religious persons and students are time-sensitive travellers. Hence they are placed under one group. Employees include both time-sensitive and price-sensitive travellers. Retired persons and others are also considered to be a mix of price-sensitive and time-sensitive travellers. Table 6.2 show the descriptive statistics of the constructs.

Table 6.2

Antecedents of Attitudes Towards Price Dynamics

SI. No.	Constructs	Code	Mean	SD.
1	Hedonic Motivation	HDM	3.53	0.884
2	Internet Browsing Expertise	IBE	4.16	0.811
3	Word of Mouth Information	WMI	3.88	0.878
4	Information from Airline Advertisement	IAA	3.93	1.029
5	E-Payment Expertise	EPE	3.99	0.842
6	Price Saving Orientation	PSO	4.07	0.863
7	Service Quality Perception	SQP	3.26	1.055
8	Awareness of Airline Price Dynamics	APD	4.53	0.591
9	Pre-Purchase Planning Behaviour	PPB	4.10	0.771
10	Post-Purchase Dissonance	PPD	2.41	1.075

Source: Primary Data

As per table 6.2, all the constructs, except post-purchase dissonance, have a mean value above 3.26. Internet browsing expertise, awareness

of price dynamics, pre-purchase planning behaviour, and price-saving orientation have higher mean values above 4.0. The mean value is lowest for post-purchase dissonance (2.41). Demographic differences of these constructs are discussed in detail, with testing of hypotheses in the next session. The mean value above 4.0 indicates the respondents' highest internet browsing expertise and awareness about price dynamics. They also show advanced planning behaviours and booking. Price-saving orientation is also high among these respondents. The low mean value of PPD shows respondent's minimised post-purchase dissonance behaviour.

6.2.1.1 Gender Differences

The researcher formulated the following null hypothesis to analyse whether the gender of the respondents influences the determinants of airline price dynamics. The researcher use the Mann-Whitney U test, which are free from normality assumptions and commonly used for social science research (Nachar, 2008). The test statistic for the Mann Whitney U Test is denoted as 'U' (Sullivan, 2015).

$H_{0\,1}$ The determinants of attitude towards airline price dynamics do not differ significantly based on gender of the respondents.

Table 6.3 shows the results of the Mann-Whitney U test conducted.

Table 6.3
Antecedents of Attitude- Gender Difference

Factors	Gender	Mean Rank	Sum of Ranks	U	Z	Asymp. Sig. (2-tailed)	Decision
Hedonic Motivation							
	Male	202.89	68577	11286		>0.05	

Female	215.04	15268		-0.79		Retain H_0
Internet Browsing Expertise						
Male	208.56	70495	10795	-1.35	>0.05	Retain H_0
Female	188.04	13351				
Word of Mouth Information						
Male	204.74	69201	11910	-0.1	>0.05	Retain H_0
Female	206.26	14645				
Information from Airline Advertisement						
Male	206.01	69632	11657	-0.38	>0.05	Retain H_0
Female	200.18	14213				
E-Payment Expertise						
Male	205.1	69310	11979	-0.02	>0.05	Retain H_0
Female	204.7	14535				
Price Saving Orientation						
Male	205.4	69408	11881	-0.13	>0.05	Retain H_0
Female	203.3	14437				
Service Quality Perception						
Male	205.5	69442	11847	-0.17	>0.05	Retain H_0
Female	202.9	14403				
Awareness of Airline Price Dynamics			11155	-0.96		
Male	202.50	68446			>0.05	Retain H_0
Female	216.89	15399				
Pre-Purchase Planning Behaviour			11153	-0.94		
Male	202.50	68444			>0.05	Retain H_0
Female	216.92	15402				
Post-Purchase Dissonance Behaviour			8688	-3.68		
Male	214.80	72601			<0.05	**Reject H_0**
Female	158.37	11244				

Source: Primary Data, N= 409, M=338, F=71

Note: Asymptotic significances. The significance level is 0.05.

The P values of all antecedents, except post-purchase dissonance, as per Table 8.3, are above 0.05; hence, the null hypothesis is accepted. It is concluded that the gender of the respondents does not significantly influence any of the antecedents of attitudes towards airline price dynamics, except post-purchase dissonance. The gender of the respondents significantly affects post-purchase dissonance; hence the null hypothesis is rejected for post-purchase dissonance. The higher mean rank of males suggests that the male population shows more post-purchase dissonance behaviour. The findings that gender makes no significant difference in the perception and use of technology support the findings of Bain (Bain & Rice, 2006).

6.2.1.2 Differences with Nationality of Respondents

Studies show that customers' service preferences vary by nationality (Martin-Domingo & Carlos, 2016). Americans had more extreme views on services than the Indian participants, except for the cargo situation (Winter et al., 2015). Jung and Yoo argued that passengers have a strong orientation towards their national airlines (Jung & Yoo, 2016). Considering all these views, the researcher formulates the following null hypothesis to analyse whether the respondents' nationality influences the determinants of airline price dynamics.

$H_{0\,2}$ The determinants of attitude towards airline price dynamics do not differ significantly based on nationality of the respondents.

Mann-Whitney U test was conducted at a 5% significance level to test the null hypothesis. Table 6.4 shows the test results.

Table 6.4

Antecedents of Attitudes - Difference with Nationality

Factors	Nationality	Mean Rank	Sum of Ranks	U	Z	Asymp .Sig (2-tailed)	Decision
Hedonic Motivation							
	Indian	207.8	79588	3906	-1.85	>0.05	Retain H_0
	Foreign	163.73	4257				
Internet Browsing Expertise							
	Indian	202.87	77699	4163	-1.42	>0.05	Retain H_0
	Foreign	236.38	6146				
Word of Mouth Information							
	Indian	207.24		4120	-1.49	>0.05	Retain H_0
	Foreign	171.96					
Information from Airline Advertisement							
	Indian	206.37	79039	4455	-0.91	>0.05	Retain H_0
	Foreign	184.85	4806				
E-Payment Expertise							
	Indian	202.32	77488				Retain H_0
	Foreign	244.5	6357	3952	-1.78	>0.05	
Price Saving Orientation							
	Indian	206.34	79027	4467	-0.89	>0.05	Retain H_0
	Foreign	185.31	4818				
Service Quality Perception				4425	-0.95	>0.05	Retain H_0
	Indian	203.55	77961				

Foreign	226.31	5884				
Awareness of Airline Price Dynamics						
Indian	204.09	78167	4631	-0.62	>0.05	Retain H_0
Foreign	218.38	5678				
Pre-Purchase Planning Behaviour						
Indian	201.77	77277	3741	-2.14	<0.05	**Reject H_0**
Foreign	252.62	6568				
Post-Purchase Dissonance						
Indian	206.51	79092	4402	-1.00	>0.05	Retain H_0
Foreign	182.81	4753				

Source: Primary Data, N= 409, Indian =383, Foreign=26

Note: Asymptotic significances. The significance level is 0.05.

The P values of all determinants, as per Table 6.4, are above 0.05, except for pre-purchase planning behaviour. Hence, the null hypothesis is accepted. Therefore, it is concluded that the respondents' nationality does not significantly influence the antecedents of attitudes towards airline price dynamics, except for pre-purchase planning behaviour. The higher mean rank of foreigners suggests that they show more pre-purchase planning behaviour than Indians. The finding that the service quality perception does not vary with nationality contradicts the findings of Martin and Carlos (Martin-Domingo & Carlos, 2016) in the airline service quality aspect.

6.2.1.3 Regional Differences

Respondents from India include people from North India and South India. These regional differences in the antecedents of attitudes

towards price dynamics were tested by formulating the following hypothesis.

$H_{0\,3}$ The determinants of attitude towards airline price dynamics do not differ significantly based on region of the respondents.

This analysis does not include foreign respondents since the researcher discussed it under the head differences with nationality. Table 6.5 shows the test results Mann-Whitney U test.

Table 6.5

Antecedents of Attitudes - Regional Difference

Factors	Nationality	Mean Rank	Sum of Ranks	U	Z	Asymp. Sig. (2-tailed)	Decision
Hedonic Motivation							
	South Indian	203.02	48522	14574	-2.52	<0.05	**Reject H_0**
	North Indian	173.71	25014				
Internet Browsing Expertise							
	South Indian	199.89	47773	15323	-1.82	>0.05	Retain H_0
	North Indian	178.91	25763				
Word of Mouth Information							
	South Indian	199.37	47650	15446	-1.70	>0.05	Retain H_0
	North Indian	179.76	25886				
Information from Airline Advertisement							
	South Indian	207.35	49556	13540	-3.56	<0.05	**Reject H_0**

North Indian	166.53	23980				
E-Payment Expertise						
South Indian	200.13	47831	15265	-1.87	>0.05	Retain H_0
North Indian	178.51	25705				
Price Saving Orientation						
South Indian	207.53	49600	13496	-3.57	<0.05	**Reject H_0**
North Indian	166.22	23936				
Service Quality Perception						
South Indian	206.21	49285	13811	-3.25	<0.05	**Reject H_0**
North Indian	168.41	24251				
Awareness of Airline Price Dynamics						
South Indian	200.10	47824	15272	-1.90	>0.05	Retain H_0
North Indian	178.56	25712				
Pre-Purchase Planning Behaviour						
South Indian	212.64	50821	12275	-4.74	<0.05	**Reject H_0**
North Indian	157.74	22715				
Post-Purchase Dissonance						
South Indian	207.53	49600	13496	-3.56	<0.05	**Reject H_0**
North Indian	166.22	23936				

Source: Primary Data, N= 383, North Indian =144, South Indian =239

Note: Asymptotic significances. The significance level is 0.05

As per Table 6.5, internet browsing expertise, word of mouth information, e-payment expertise, and awareness of airline price dynamics do not significantly differ among the respondents of South India and North India (P >0.05). Hence the null hypothesis is retained. On the other hand, hedonic motivation, information from airline advertisements, price-saving orientation, service quality perception, pre-purchase planning behaviour, and post-purchase dissonance behaviour significantly differ among the respondents from South India and North India (P <0.05). Hence the null hypothesis is rejected. Since the mean ranks of South Indians are higher, they are more prone to these qualities. Even though awareness of price dynamics does not differ, South Indians prefer to plan for advance booking with a price-saving orientation. They give more importance to service quality, and are more responsive to airline advertisements.

6.2.1.4 Differences in Travel Frequency

Travel purpose and experience will render opposing attitudes towards the price of the offer or the carrier (Drabas & Wu, 2013). Chia and Chen found a correlation between travel frequency and intention to purchase tickets online (Chia-Yu Chen, 2007). The researcher formulates the following hypotheses to analyse whether travel frequency influences the antecedents of attitudes towards price dynamics. For this purpose, frequent traveller is defined as a person who travels three or more times by flight in a year. The Mann-Whitney U tests at 5% significance; Table 6.6 shows the results.

$H_{0\,4}$ The determinants of attitude towards airline price dynamics do not differ significantly based on travel frequency of the respondents.

Table 6.6

Antecedents of Attitude- Difference with Travel Frequency

Factors	Travel Frequency	Mean Rank	Sum of Ranks	U	Z	Asymp. Sig (2-tailed)	Decision
Hedonic Motivation							
	Frequent	202.73	44600	20290	-0.42	>0.05	Retain H_0
	Non-Frequent	207.65	39246				
Internet Browsing Expertise							
	Frequent	172.59	37970	13660	-6.06	<0.05	**Reject H_0**
	Not Frequent	242.73	45876				
Word of Mouth Information							
	Frequent	183.59	40389	16079	-4.01	<0.05	**Reject H_0**
	Not Frequent	229.93	43456				
Information from Airline Advertisement							
	Frequent	191.71	42176	17866	-2.5	<0.05	**Reject H_0**
	Not Frequent	220.47	41670				
E-Payment Expertise							
	Frequent	185.41	40791	16481	-3.66	<0.05	**Reject H_0**
	Not Frequent	227.80	43055				
Price Saving Orientation							
	Frequent	193.26	42518	18208	-2.19	<0.05	**Reject H_0**
	Not Frequent	218.66	41327				

Service Quality Perception						
Frequent	169.69	37332	13022	-6.54	<0.05	**Reject H_0**
Not Frequent	246.10	46514				
Awareness of Airline Price Dynamics						
Frequent	194.83	42862	18552	-1.94	>0.05	Retain H_0
Not Frequent	216.84	40984				
Pre-Purchase Planning Behaviour						
Frequent	196.54	43238		-1.57	>0.05	Retain H_0
Not Frequent	214.85	40607	18928			
Post-Purchase Dissonance						
Frequent	208.12	45786	20105	-0.58	>0.05	Retain H_0
Not Frequent	201.37	38060				

Source: Primary Data, N= 409, Frequent =220, Non-frequent =189

Note: Asymptotic significances. The significance level is 0.05.

Hedonic motivation, awareness of price dynamics, pre-purchase planning behaviour, and post-purchase dissonance behaviour does not significantly differ with the Travel frequency of the respondents ($p>0.05$). Hence the null hypothesis is retained. However, the constructs of word-of-mouth information, information from airline advertisements, price-saving orientation, internet browsing expertise, e-payment expertise, and service quality perception significantly differ with the travel frequency of respondents ($p<0.05$). Hence the null hypothesis is rejected. The mean ranks are higher for non-frequent travellers for these qualities. It indicates that a frequent traveller gives

less importance to word of mouth or airline advertisements. They are less focused on service quality and price savings.

6.2.1.5 Occupational Differences

Occupation generally influences the travel plan. For example, it may not be possible for business people to capture low-priced tickets since they cannot adjust their business meetings. Hence they are more time-conscious (Jay Graham et al., 2010)(Martínez-garcia et al., 2012). Students and business travellers possess similar attributes of satisfaction (Tahanisaz & Sajjad shokuhyar, 2020). For employees and students, planning may be possible for their vacation travel. But their dates of travel are not flexible. Occupations of the respondents are grouped into three: (a) business, religious persons and students (BRS) (b) employees, and (c) retired and others. The following null hypothesis was formulated to test the differences.

$H_{0\,5}$ The determinants of attitude towards airline price dynamics do not differ significantly based on occupation of the respondents.

Kruskal Wallis Test was conducted to test the null hypothesis. Table 6.7 shows the test results.

Table 6.7

Antecedents of Attitude- Occupational Difference

Factors	Occupation	Mean Rank	Chi-Square	df	Asymp. Sig.	Decision
Hedonic Motivation						
	BRS	190.54	4.797	2		
	Employees	204.81			>0.05	Retain H_0
	Retired & Others	243.45				

Internet Browsing Expertise					
BRS	171.36				
Employees	222.74	26.045	2	<0.05	**Reject H_0**
Retired & Others	133.62				
Word of Mouth Information					
BRS	202.92	0.372	2		Retain H_0
Employees	206.80			>0.05	
Retired & Others	194.35				
Information from Airline Advertisement					
BRS	183.02	5.678	2		
Employees	207.70			>0.05	Retain H_0
Retired & Others	237.09				
E-Payment Expertise					
BRS	157.10	32.808	2		
Employees	225.85			<0.05	**Reject H_0**
Retired & Others	142.47				
Price Saving Orientation					
BRS	182.46	5.294	2		
Employees	208.26			>0.05	Retain H_0
Retired & Others	233.50				
Service Quality Perception					
BRS	193.05	9.357	2		
Employees	201.77			<0.05	**Reject H_0**
Retired & Others	264.00				

Awareness of Airline Price Dynamics					
	BRS	197.22	0.495	2	
	Employees	207.19		>0.05	Retain H_0
	Retired & Others	205.44			
Pre-Purchase Planning Behaviour					
	BRS	175.69	11.18	2	
	Employees	207.89		<0.05	**Reject H_0**
	Retired & Others	254.02			
Post-Purchase Dissonance Behaviour					
	BRS	228.94	15.97	2	
	Employees	191.35		<0.05	**Reject H_0**
	Retired & Others	264.83			

Source: Primary Data, N=409, BRS =84, Employees = 292, Retired Person = 33

As per Table 6.7, hedonic motivation, word of mouth information, information from airline advertisement, price-saving orientation, and awareness of price dynamics does not significantly differ with the occupation of the respondents ($p>0.05$). Hence the null hypothesis is retained. Internet browsing expertise, e-payment expertise, service quality perception, Pre-purchase planning behaviour, and post-purchase dissonance significantly differ with the occupation of respondents ($p<0.05$). Hence the null hypothesis is rejected.

The retired and others give more importance to service quality, since the mean ranks are higher for them. They also show more pre-purchase planning behaviour and post-purchase dissonance behaviour. At the same time price saving orientation is not higher among them than others.

6.2.1.6 Differences with Flying Experience

Respondents include travellers with only domestic flight travel experience, international flight travel experience, or both. These travel experiences may influence their attitudes towards airline price experience. Studies also proved that ticket purchase behaviour differs dramatically between local and international flights (Lantseva et al., 2015). Hence the following hypothesis was made to evaluate whether their travel experience affects the factors leading to attitudes towards airline price dynamics.

$H_{0\,6}$ The determinants of attitude towards airline price dynamics do not differ significantly based on flying experience of the respondents.

Kruskal-Wallis Test was conducted to test the hypothesis, and Table 6.8 shows the results.

Table 6.8

Antecedents of Attitudes - Difference with Flying Experience

Factors	Flight Experience	Mean Rank	Chi-Square	df	Asymp. Sig.	Decision
Hedonic Motivation						
	Domestic	214.97				
	International	214.85	4.629	2	>0.05	Retain H_0
	Both	189.23				
Internet Browsing Expertise						
	Domestic	189.7				
	International	237.73	10.202	2	<0.05	**Reject H_0**
	Both	201.03				
Word of Mouth Information						

Domestic	212.25				
International	176.76	7.086	2	<0.05	**Reject H_0**
Both	214.37				
Information from Airline Advertisement					
Domestic	221.79				
International	220.56	12.849	2	<0.05	**Reject H_0**
Both	179.05				
E-Payment Expertise					
Domestic	190.57				
International	255.33	22.303	2	<0.05	**Reject H_0**
Both	189.8				
Price Saving Orientation					
Domestic	219.01				
International	210.49	5.895	2	>0.05	Retain H_0
Both	187.76				
Service Quality Perception					
Domestic	160.28				
International	238.8	37.428	2	<0.05	**Reject H_0**
Both	229.83				
Awareness of Airline Price Dynamics					
Domestic	207.78				
International	186.82	3.192	2	>0.05	Retain H_0
Both	212.92				
Pre-Purchase Planning Behaviour					
Domestic	203.53			>0.05	Retain H_0

	International	216.99	1.356	2	
	Both	199.41			
Post-Purchase Dissonance Behaviour					
	Domestic	201.97			
	International	231.84	6.818	2	<0.05 **Reject H_0**
	Both	192.23			

Source: Primary Data, N= 409, Domestic=158, International=93, Both=158

Note: Asymptotic significances. The significance level is 0.05.

Table 6.8 reveal that hedonic motivation, price-saving orientation, awareness of price dynamics, and pre-purchase planning behaviour are not influenced by their domestic/international travel experience ($p>0.05$). Hence the researcher accepts the null hypothesis. Word of mouth information, information from airline advertisements, internet browsing expertise, e-payment expertise, service quality perception, and post-purchase dissonance significantly differ with the respondents' travel experience ($p<0.05$). Hence the null hypothesis is rejected. The mean ranks of service quality perception are higher for international travellers than domestic travellers. Moreover, post-purchase dissonance behaviour is also more among them.

6.2.1.7 Antecedents of Attitudes –Travel Purpose

Travel demand depends on the purpose of passengers to travel to another place, either for leisure or business (Mark Smyth & Pearce, 2008). This categorisation seems to be the common base for grouping airline passengers. For example, chin defines a business traveller as one who travels for work regardless of who pays for the fare (Chin,

2002). However, Lazarev observed that business travellers were willing to pay six times more for a seat based on his empirical analysis (Lazarev, 2013). Generally, people value seat availability rather than the price difference in case of emergency. The cost comparison perspective study on emergencies conducted by Gilbert supports this argument (Gilbert et al., 2017). In this study, the purpose of travel is classified into official travel, vacation/leisure trip, holidays and leave travel. The following hypothesis is formulated to cross-evaluate whether their travel purpose influences the antecedents of attitudes towards airline price dynamics.

$H_{0\,7}$ The determinants of attitude towards airline price dynamics do not differ significantly based on travel purpose of the respondents.

Kruskal-Wallis Test at a 5% significance level was conducted to test the hypothesis, and Table 6.9 shows the results.

Table 6.9

Antecedents of Attitudes - Difference with Travel Purpose

Factors Purpose of Travel	Mean Rank	Chi-Square	df	Asymp. Sig.	Decision
Hedonic Motivation					
Official Travel	212.10				
Vacation/Leisure Trip	214.89	4.334	2	>0.05	Retain H_0
Holidays and Leave	188.01				
Internet Browsing Expertise					
Official Travel	216.42				

Vacation/Leisure Trip	198.07	1.878	2	>0.05	Retain H_0
Holidays and Leave	201.35				
Word of Mouth Information					
Official Travel	224.18				
Vacation/Leisure Trip	199.02	5.344	2	>0.05	Retain H_0
Holidays and Leave	193.00				
Information from Airline Advertisement					
Official Travel	195.28				
Vacation/Leisure Trip	188.70	10.621	2	<0.05	**Reject H_0**
Holidays and Leave	231.11				
E-Payment Expertise					
Official Travel	220.11				
Vacation/Leisure Trip	211.44	7.021	2	<0.05	**Reject H_0**
Holidays and Leave	183.99				
Price Saving Orientation					
Official Travel	205.93				
Vacation/Leisure Trip	191.75	3.477	2	>0.05	Retain H_0
Holidays and Leave	217.85				
Service Quality Perception					
Official Travel	233.87				
Vacation/Leisure Trip	202.86	14.103	2	<0.05	**Reject H_0**
Holidays and Leave	179.82				

Awareness of Airline Price Dynamics					
Official Travel	210.78				
Vacation/Leisure Trip	208.63	1.369	2	>0.05	Retain H_0
Holidays and Leave	195.74				
Pre-Purchase Planning Behaviour					
Official Travel	217.58				
Vacation/Leisure Trip	206.88	3.448	2	>0.05	Retain H_0
Holidays and Leave	191.12				
Post-Purchase Dissonance					
Official Travel	191.73				
Vacation/Leisure Trip	212.45	2.461	2	>0.05	Retain H_0
Holidays and Leave	209.86				

Source: Primary Data

N=409, Official Travel=130, Vacation/Leisure Trip=142, Holidays and Leave travel=137

Note: Asymptotic significances. The significance level is 0.05.

As per Table 6.9, travel purpose significantly influences the antecedents of information from airline advertisement, e-payment expertise, and service quality perception ($p<0.05$). Hence the null hypothesis is rejected. On the other hand, other antecedents of attitude towards price dynamics are not significantly influenced by the respondents' travel purpose ($p>0.05$). Hence the null hypothesis is retained. Information from airline advertisement is used by holidays and leave travellers, sine their mean rank is higher. Service quality perception is more among official travellers followed by vacation/leisure travellers than leave travellers.

6.3 Demographic Characteristics and Attitudes Towards Price Dynamics

Airline price dynamics is an innovative revenue management mechanism which does not prevail traditionally. Charging a differential price for the same service without any social justification is not compatible with the existing norms of society (Ayadi et al., 2017). Roger argues that positive and negative consequences can be there in implementing outcomes of any innovative ideas (Rogers, 1983). Hence, attitude describes positive and negative feelings (Chia-Yu Chen, 2007). Relative advantage, compatibility, complexity, trialability and observability are the determinant attributes of attitude as per Diffusion of Innovation Theory (Rogers, 1983). This theory was selected because dynamic pricing is an innovative practice. Comparative advantage is the degree to which the idea brings economic profitability. Compatibility is the degree to which the idea is consistent with the existing values. The difficulty of perceiving a phenomenon increases its complexity in creating an attitude. Trialability is the degree to which it could have experimented. Observability is the degree to which it is visible to others (Rogers, 1983). Based on this theoretical base of attitude, the researcher has formulated a questionnaire focusing on the merits and demerits of dynamic prices to catch their attitude. Table 6.10 gives the variables, code assigned, and respective theories.

Table 6.10
Theory base of Attitudes Towards ADP

Code	Determinant	Theory
PAP1	Dynamic pricing offers low-priced tickets	Relative Advantage, Trialability, Observability

PAP2	Dynamic pricing ensures tickets in emergency	Relative Advantage, Trialability, Observability
PAP3	Dynamic pricing helps to develop the civil aviation market	Complexity
NAP1	Dynamic pricing leads to the exploitation of passengers.	Compatibility, Complexity, Observability
NAP2	Dynamic pricing is always favourable to the airline company.	Complexity
NAP3	Low-priced tickets are very few in dynamic pricing	Observability, Complexity
NAP4	Price hikes may force one to cancel their travel	Relative Advantage, Compatibility, Observability

Source: Primary Data, NAP- Negative Attitude, PAP- Positive Attitude

Based on the theory questionnaire was formulated and the Table 6.11 shows the percentage analysis of the attitudes of respondents towards airline price dynamics.

Table 6.11

Attitudes Towards Airline Dynamic Pricing (% Analysis)

Code	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Mean	SD
PAP1	2.9	7.8	37.9	32.3	19.1	100	3.57	1.0
PAP2	5.9	10.3	40.6	23.5	19.7	100	3.41	1.1
PAP3	4.9	15.4	47.7	18.1	13.9	100	3.21	1.0
NAP1	5.4	5.9	41.3	23.0	24.4	100	3.55	1.1
NAP2	2.9	5.9	41.6	24.0	25.6	100	3.64	1.0
NAP3	2.9	4.9	43.3	26.7	22.2	100	3.60	1.0
NAP4	6.1	14.2	39.6	24.2	15.9	100	3.30	1.1

Source: Primary Data

Table 6.11 reveals that the percentage of neutral opinion is between 37.9 and 47.7. A high rate of neutral view may be due to the confusion they may feel from their experience. Respondents (37.9%) are confused about the relative advantage of getting low-priced tickets. Only 19.1 % of the respondents strongly agree with it, while 32.3% agree. The comparative advantage of ensuring tickets in an emergency is that the number of agreeing respondents is fewer (19.8 and 23.5). The justification of price discrimination based on the prospective chance of being benefitted makes the decision complex. Even though the situation brings chances of relative advantage to the traveller, the situation is complex or new for them to form an attitude. This complexity and newness of the situation could be the reason for opting for a neutral position.

Moreover, the percentage of agreeableness positive aspects (PAP) of price dynamics are between 32 to 51.4 percent. Those who disagree with the positive arguments supporting dynamic pricing are between 10.7 and 20.3 percent only. The percentage of agreeableness to negative aspects (NAP) is also between 40.1 and 49.7 percent. This also indicates the confusion formed in the mind of travellers.

Further analysis was made to verify whether the opinion of respondents varied with demographic factors. The researcher used Mann-Whitney U and Kruskal-Wallis tests for the detailed analysis.

6.3.1 Attitudes Towards ADP - Demographic Difference

Airline price dynamics is an area where differential pricing has been adopted successfully. However, this industry's price difference is

high, which would have attracted purchase dissonance and a negative attitude. Hence the following hypothesis was formulated to check whether the demographic factors make any difference in the post-purchase dissonance behaviour (PPDB) and attitudes of customers. The following hypotheses were formulated.

$H_{0\,8}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on gender of the respondents.

$H_{0\,9}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on nationality of the respondents.

$H_{0\,10}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on travel frequency of the respondents.

$H_{0\,11}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on region of the respondents.

The researcher tested the null hypotheses using the Mann-Whitney U test. Table 6.12 show the result.

Table 6.12

Attitudes Towards ADP – Demographic Difference

Factors							
Demographic Factor	N	Mean Rank	Sum of Ranks	U	Z	Asymp. Sig. (2-tailed)	Decision

Gender							
Positive Attitude							**Reject H_0**
Male	338	198.17	66983	9691.5	-2.58	0.010	
Female	71	237.5	16863				
Negative Attitude							
Male	338	212.07	71679	9610.5	-2.67	0.008	**Reject H_0**
Female	71	171.36	12167				
Nationality							
Positive Attitude							
Indian	383	204.41	78290	4754			Retain H_0
Foreign	26	213.65	5555		-0.39	0.697	
Negative Attitude							
Indian	383	203.68	78009	4473			Retain H_0
Foreign	26	224.46	5836		-0.88	0.380	
Travel Frequency							
Positive Attitude							
Frequent	220	206.04	45329	20562	-0.19	0.846	Retain H_0
Not frequent	189	203.79	38517				
Negative Attitude							
Frequent	220	187.78	41313	17003	-3.22	0.001	**Reject H_0**
Not frequent	189	225.04	42533				
Region*							
Positive Attitude							
South Indian	239	192.36	45974	17122	-0.08	0.934	Retain H_0
North Indian	144	191.4	27562				

Negative Attitude							
South Indian	239	209.81	50144	12952	-4.1	0.000	**Reject H_0**
North Indian	144	162.44	23392				

Source: Primary Data, N=409, *N (Excluding foreigners)= 383

The results of the Mann-Whitney U Test given in Table 8.12 show that:

(a) The gender of the respondent significantly influences airline passengers' positive and negative attitudes ($p<0.05$). Hence the null hypothesis H_0 is rejected for this aspect.

(b) The respondent's nationality does not significantly differ with airline passengers' positive and negative attitudes ($p>0.05$). Hence the null hypothesis H_0 is retained for this aspect.

(c) The travel frequency of the respondent does not significantly influence the positive attitudes towards the ADP of airline passengers ($p>0.05$). Hence the null hypothesis H_0 is retained in this aspect.

(d) The travel frequency of the respondent significantly influences the negative and overall attitudes towards the ADP of airline passengers ($p<0.05$). Hence the null hypothesis H_0 is rejected in this aspect.

(e) The respondent's region does not significantly influence the positive attitudes towards the ADP of airline passengers ($p>0.05$). Hence the null hypothesis H_0 is retained in this aspect.

(f) The respondent's region significantly influences the negative and overall attitudes towards the ADP of airline passengers ($p<0.05$). Hence the null hypothesis H_0 is rejected in these aspects.

Cross evaluation of the mean rank indicates that female respondents support positive aspects of price dynamics and rejects the negative aspects of price dynamics than male respondents. This is contrary to the findings of Beldona, where females perceived significantly lesser fairness across all pricing scenarios of hotel firms (Beldona & Namasivayam, 2006).

Indians support the positive aspects more than foreigners. On the other hand, foreigners agree more with negative elements than Indians. Moreover, considering the regional differences, North Indians support the positive aspects more than South Indians. However, these differences are not statistically significant. Therefore, these findings contradict Bolton's argument that price fairness is a function of culture (Bolton et al., 2010). On the other hand, South Indians admit the negatives of dynamic pricing more than the North Indians. Since these differences are statistically significant, this supports the argument of Bolton to an extent.

6.3.2 Attitudes Towards ADP– Other Influencing Factors

The researcher formulated the following null hypotheses to check whether the respondent's occupation, flying experience, travel purpose and brand preference influence the attitudes of respondents towards airline price dynamics.

$H_{0\,12}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on occupation of the respondents.

$H_{0\,13}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on flying experience of the respondents.

$H_{0\,14}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based travel purpose of the respondents.

$H_{0\,15}$ Positive and negative attitudes towards airline price dynamics does not differ significantly based on brand preference of the respondents.

The researcher used the Kruskal-Wallis Test to test the above hypotheses, and Table 6.13 shows the results.

Table 6.13

Attitudes Towards ADP – Other Influencing Factors

Factors Basis of Difference	N	Mean Rank	Chi-Square	df	Asymp. Sig.	Decision
Occupation						
Positive Attitude						
Employees	310	196.6	7.330	2	.026	**Reject H_0**
BRS	58	222.9				
Retired and Others	41	243.2				
Negative Attitude						
Employees	310	204.2	4.822	2	.090	Retain H_0

BRS	58	185.8				
Retired and Others	41	237.9				
Flying Experience						
Positive Attitude						
Domestic	158	213.5	11.767	2	0.003	**Reject H_0**
International	93	230.7				
Both	158	181.4				
Negative Attitude						
Domestic	158	187.9	6.207	2	0.045	**Reject H_0**
International	93	223.6				
Both	158	211.2				
Travel Purpose						
Positive Attitude						
Official Travel	130	225.07	11.239	2	0.004	**Reject H_0**
Vacation/Leisure Trip	142	211.95				
Holidays & Leave Travel	137	178.75				
Negative Attitude						
Official Travel	130	193.20	3.957	2	0.138	Retain H_0

Vacation/Leisure Trip	142	220.25				
Holidays & Leave Travel	137	200.39				
Brand Preference						
Positive Attitude						
No Brand Preference	128	176.3				
Air India	47	272.2	23.568	3	0.000	**Reject H_0**
IndiGo	136	204.1				
Others	98	211.6				
Negative Attitude						
No Brand Preference	128	223.4				
Air India	47	166.7	11.166	3	0.011	**Reject H_0**
IndiGo	136	191.7				
Others	98	217.9				

Source: Primary Data, N=409

Note: Asymptotic significances

The Kruskal-Wallis Test result shown in table 6.13 reveals that:

(a) $H_{0\ 12}$ is rejected for the positive attitude and retained for negative attitude. Occupation of the passengers does not

significantly affects their negative attitude, but it significantly affects their positive attitude.

(b) $H_{0\ 13}$ is rejected since P values are lesser than the critical value of 0.05. It is concluded that passengers flying experience significantly affects their attitudes towards the ADP.

(c) The null hypothesis $H_{0\ 14}$ is rejected for the positive attitude and retained for negative attitude. Therefore, the travel purpose of the passengers does not significantly affect their negative attitude, but it significantly affects their positive attitude.

(d) The test results failed to accept $H_{0\ 15}$ the same for positive and negative attitudes. Hence it is concluded that the passengers' brand preference significantly influences their positive and negative attitudes towards ADP. But brand preference does not significantly affect their overall attitudes towards ADP.

An analysis of the mean rank indicated that occupation contributes to the positive aspects of airline price dynamics. Positive qualities were more important to retirees than business, religion, and students. Positive and negative features were least regarded by those who had taken overseas flights. Domestic travellers value both aspects more. Leisure travellers value positive aspects more than holiday travellers and official travellers. The positive attitude was highest for those who preferred the Air India brand, followed by other brands and Indigo. Those with no brand preference valued positive aspects the least. Conversely, individuals who do not have a preference for any brand placed greater emphasis on negative attributes. This supports the argument that experience and brand preference will affect the perceptions of price fairness of the consumers (Setiawan et al., 2016).

6.4 Conclusion

The analysis reveals distinct demographic variations in attitudes and behaviours related to dynamic airline pricing. Post-purchase dissonance was the only antecedent construct showing a gender difference, while both positive and negative attitudes varied significantly by gender. Male respondents experienced higher dissonance and negative attitudes, whereas females exhibited a more positive attitude. Significant differences in pre-purchase planning behaviour were observed between Indians and foreigners, with foreign travellers engaging in more detailed planning to secure optimal fares. Regional differences were evident between North and South Indians across several constructs, with South Indians recording higher mean values. Additionally, frequent and non-frequent travellers differed significantly on multiple factors, with not frequent travellers showing higher mean scores across these constructs.

The mean values of internet browsing expertise, e-payment expertise, and service quality perception were highest among employees, followed by business and retired persons. There was a significant difference in their responses. But retired persons showed the highest pre-purchase planning and post-purchase dissonance behaviours. This was least among business, religious and student travellers who are more time sensitive. Even though the occupation did not significantly influence a negative attitude, a positive attitude does. Retired persons showed a more positive attitude, followed by business people and employees. Respondents having only international flight experience showed more mean values of internet browsing expertise, service quality perception, and negative attitude. Mean values were least for respondents with domestic experience only. Word of mouth Information showed the highest mean values for respondents with

domestic and international flight experience. Mean values were least for respondents having only international flight travel experience. Information from Airline Advertisements was mostly used by domestic travellers rather than international flight travellers. E-payment expertise, post-purchase dissonance behaviour, and positive attitude were more for travellers with international flight experience, followed by domestic travellers. Responses to information from airline advertisements, service quality perception, and positive attitude significantly differ in the travel purpose of respondents. Holiday/leave travellers used information from airline advertisements than official and leisure travellers. Service quality perception and positive attitude were highest among travellers with official purposes and lowest for holidays/leave travellers.

These analyses contribute to the literature about the influencing factors on the antecedents of attitudes towards airline price dynamics. As a result, airline companies can focus more on advertisements targeting domestic travellers. Moreover, the study supports the findings of previous researchers (Tahanisaz & Sajjad Shokuhyar, 2020), (Hasan et al., 2020) that the highest service quality perception prevails among business/official travellers. The finding that a positive attitude was more among those who showed post-purchase dissonance behaviour might be an opening to provide more outlets of grievance redressal mechanisms on the part of airline companies.

Chapter 7

Summary, Findings, and Suggestions

7.1 Introduction

Price discrimination has been used for revenue maximisation by merchants in various forms. Even though price discrimination based on gender, race, colour, caste, religion, etc., has been illegal unless it aims to advance that weaker section, discrimination in the form of cash discounts, trade discounts, seasonal offers, etc., was commonly accepted practices followed by business people. While seasonal pricing in many sectors of the tourism industry creates seasonal price discrimination, dynamic pricing in the airline industry creates real-time price discrimination based on the booking time. Demand anticipation also plays a role in making this airline's price dynamic.

7.2 Study in Retrospect

The government takes maximum retail price, price ceiling, floor pricing, and various other regulatory measures to eliminate price discrimination in India. The travel sector had been considered an essential service sector with government-controlled fares. After the deregulation of airfares and with the emergence of the LCC sector, price discrimination based on the time of booking turned into the globally accepted face of airline ticket prices. But a booking in advance does not necessarily ensures a least-priced ticket. This dynamic pricing has become a common practice in the civil aviation sector. The researcher has observed a difference of nearly ₹10,000/- for a one-hour trip from Kochi to Bangalore on the same flight without any change in the service quality. Between the same category flights, the difference increased further.

The introduction of the LCC sector has changed the airline mode of travel from a luxury label to an affordable means for the lower middle class. Moreover, introducing LCC increased passenger traffic

dramatically and continuously from year to year. The trending dynamic pricing strategy is a key reason for these developments, primarily because it catalyses the demand for a perishable product with close substitutes. Internet penetration techniques and seat classification techniques within LCCs have accelerated the growth of civil aviation worldwide. Dynamic pricing is an approach to optimise revenue by influencing the purchase decisions of customers on a perishable and limited supply of travel seats. Hence, an increase in price with an increase in expected demand is always visible in this sector. A limited number of seats or limited supply, close substitutes of travel or dynamic demand and the perishable nature of product make air travel and its pricing more complex. The market also fluctuates with the price elasticity of travellers since there are other modes of travel, including train service, especially on the domestic route. Thus, airline seats are a time-dated product that expires at a point in time. Therefore, frequent modifications of prices and the set of other pricing strategies practically work as a price discovery mechanism.

Even though the Indian civil aviation industry has been showing steady growth since its beginning, a dramatic increase in passenger traffic was noticed in 2003. The introduction of LCC with a dynamic pricing strategy was an associated change in the service and pricing traditions that prevailed in the civil aviation system. Moreover, the industry became a sector that directly influences nearly 200 million people. However, the passengers rarely criticised the first-degree discrimination created by dynamic pricing. The National Transport Development Policy Committee suggested the government to regulate air travel service pricing in India to offer non-predatory, non-discriminatory and reasonable prices for air travellers and transparency in pricing, quoting two of such rare criticisms in 2013 (NTDPC, 2013).

In Europe, Australia, the United States of America (US), and a few Asian countries like China, several studies have been conducted by researchers on civil aviation. These researches contribute to the literature, benefiting the industry and travellers. However, comparatively few research articles in India have been published in this area, irrespective of their importance. The present study intends to explore some of the essential areas ignored by the researchers on the price dynamics of domestic civil aviation market of India. First-degree price discrimination generally evokes criticism; the airline industry seems to be an exception. While considering the ethical aspects of discrimination, an essential factor to be considered is the growth of the civil aviation industry on the shoulders of LCC.

In this situation, the present research was conducted to address the following questions related to the dynamic pricing in the domestic civil aviation of India:

1. Are the customers aware of price discrimination in the form of dynamic pricing?
2. What are their attitudes towards airline price dynamics?
3. What are the factors leading to the attitudes of passengers towards this price dynamics?

The scope of the study is limited to Indian domestic civil aviation market with scheduled flights. The passenger traffic growth of India was compared with that of a few other selected nations to address the question of the pattern of growth. The primary objective of the present study is to conduct a major investigation into the various aspects of price dynamics in the Indian civil aviation segment. The following were the specific objectives of the study:

1. To analyse the determinants of attitudes of airline passengers towards dynamic pricing.
2. To analyse the attitudes of airline passengers towards dynamic pricing.
3. To develop, test, and validate a structural model for measuring the attitudes of passengers towards dynamic pricing.
4. To examine the demographic difference in the attitudes and its determinants of the airline passengers towards dynamic pricing.

For the analysis of customer perception of airline price dynamics, the study handles both primary and secondary data. Mann- Whitney U Test and Kruskal-Wallis Test were used along with Descriptive statistics to analyse the data. Using Partial Least Squares (PLS), the researcher created a Measurement and Structural model, which was tested for reliability and validity. The data analysis was done with the help of MS Excel, open-source software Gretl and Smart PLS4.

7.3 Summary of Major Findings

Justification of price discrimination based on dynamic pricing on the grounds of growth in the civil aviation sector, the extent of price dispersion and its pattern, antecedents of dynamic prices, attitudes of passengers towards dynamic pricing, the antecedents of such attitudes, and the demographic differences with attitudes are the major areas on which the data analysis has contributed lights. These findings are discussed briefly under different heads.

7.3.1 Attitudes Towards Airline Dynamic Pricing

1. The airline passengers have a higher level of awareness about the airline's dynamic pricing.
2. On average, the respondents avoid dissonance-making activities like price comparisons and social media reactions. There are very few customers who do this and react through social media.
3. Respondents face an ethical dilemma in forming their attitudes towards airline dynamic pricing. Most of the respondents show a neutral approach towards positive and negative aspects of airline dynamic pricing. This ethical dilemma and neutral approach are due to the complexity of the situation arising out of the chances of the relative advantage of getting tickets at a lower price.

7.3.2 Demographic Factors

4. Of the respondents, 82.6% were male, and 17.4% were female.
5. Regarding nationality, 93.6% of the respondents were Indians, and the rest were foreigners.
6. The region-wise classification shows that 58.4% of the respondents were North Indians, 35.2% were South Indians, and 6.4% were foreigners.
7. Occupation of the respondents shows that Employees and Professionals were 75.8%, Business, Religious Persons, and Students were 14.2%, and Retired Persons and Others were 10.0%.
8. Travellers for official purposes were 31.8%, vacation/leisure trips were 34.7%, and holidays or leave travel to/from the workplace 33.5% constituted the respondents.

9. Of the respondents, 53.8% were frequent travellers, and 46.2% were non-frequent travellers.

10. Respondents with only domestic flight experience were 38.6%, the international flight experience was 22.7%, and both domestic and international experience was 38.6%.

11. Of the respondents, 60.9% used to book through online websites, 33.5% through a travel agency, and 5.6% through online with the help of friends and relatives.

12. Indigo was chosen by 33.2% of respondents as their preferred airline, while 11.5% chose the then national carrier Air India. Other brands were a preference of 24.0%, while 31.3% had no brand preference.

7.3.3 Demographic Difference with Attitudes Towards Airline Dynamic Pricing

13. The gender of the respondent significantly influences positive and negative attitudes of airline passengers. Female respondents support the positive aspects of price dynamics and reject the negative aspects of price dynamics than male respondents.

14. The respondent's nationality does not significantly influence positive and negative attitudes of airline passengers. Indians support the positive aspects more than foreigners. On the other hand, foreigners agree with negative elements more than Indians.

15. The travel frequency of the respondents does not significantly influence the positive attitude towards the dynamic pricing of airline passengers but significantly influences their negative and overall attitude.

16. Positive attitude towards the airline price dynamics does not differ among North Indians and South Indians, but the negative attitude does. South Indians admit the negatives of dynamic pricing more than North Indians.

17. Occupation of the passengers does not significantly influence their negative and overall attitudes, but it significantly affects their positive attitudes. Employees provide a comparatively low value to the positive elements.

18. Flying experience of passengers significantly influences their attitudes towards the airline price dynamics.

19. Passengers with domestic and international experiences attribute more to airline price dynamics' positive and negative aspects. Passengers with only an international experience attribute the same value to negative aspects. But their perception of positive aspects differs.

20. The perception of domestic passengers on positive aspects is similar to that of respondents having both domestic and international experience. But their views differ with perspectives of negative aspects.

21. The travel purpose of the passengers does not significantly influence their negative and overall attitudes, but it significantly affects their positive attitudes.

22. Brand preference of the passengers significantly influences their positive and negative attitudes towards airline price dynamics. However, brand preference does not significantly affect their overall attitudes towards airline price dynamics. Based on brand preference, those favouring the then national brand Air India valued the positive aspects of airline price dynamics most.

Conversely, passengers with no brand preference valued positive aspects the least. But they supported the negative aspects most.

7.3.4 Determinants of Attitudes Towards Dynamic Pricing

23. The structural model explains that customer attitudes towards airline price dynamics depend on three constructs: awareness of price dynamics, pre-purchase planning behaviour and post-purchase dissonance. Hedonic motivation, internet browsing expertise, word of mouth information, information from airline advertisements, e-payment expertise, price-saving orientation, and service quality perception are the determinants of these constructs.

7.3.5 Demographic Difference with Determinants of Attitude

24. The gender of the respondents does not significantly influence the determinants of awareness of airline price dynamics or pre-purchase planning behaviour. But it significantly affects the post-purchase dissonance behaviour. This is comparatively less among female respondents.

25. The nationality of the respondents does not significantly influence the determinants of awareness of airline price dynamics and post-purchase dissonance behaviour. But it significantly influences the pre-purchase planning behaviour. Foreign respondents showed a higher level of pre-purchase planning behaviour.

26. Hedonic motivation, information from airline advertisements, price-saving orientation, and service quality perception showed a significant difference between North Indians and South Indians. Respondents from South India showed more pre-purchase planning and price-saving orientation skills than respondents

from North India. Service quality perception is also comparatively higher among respondents of South India than the other. Hedonic motivation and information from airline advertisements also showed the same pattern.

27. Awareness of airline price dynamics does not significantly differ among South Indians and North Indians. Still, a significant difference is evident in pre-purchase planning behaviour and post-purchase dissonance behaviour. Even though both categories of respondents showed low post-purchase dissonance, respondents from South India indicated comparatively increased dissonance behaviour than respondents from North India.

28. Hedonic motivation, awareness of price dynamics, pre-purchase planning behaviour, and post-purchase dissonance behaviour do not significantly differ with the travel frequency of the respondents. However, word of mouth information, information from airline advertisements, price-saving orientation, internet browsing expertise, e-payment expertise, and service quality perception significantly differ with the travel frequency of respondents.

29. A non-frequent traveller is more attentive to word of mouth information from similar groups. A frequent traveller gets more airline advertisements since the airline advertisements are more personal, like e-mail, social media, etc. Moreover, he may have more awareness about the suitability of airline offers. Naturally, a frequent traveller is more aware of the service quality of airlines than a non-frequent traveller.

30. A frequent air traveller is less attentive to word of mouth information than a non-frequent traveller. Frequent travellers'

comparatively low value of word of mouth information indicates they are more aware of those common factors.

31. Information from airline advertisements also has less influence on frequent travellers than others. Price-saving orientation is more common among non-frequent travellers than frequent travellers. A frequent traveller shows less brand preference than others.

32. Internet browsing expertise, e-payment expertise, service quality perception, pre-purchase planning behaviour, and post-purchase dissonance significantly differ with the occupation of respondents.

33. Employees have the highest internet browsing expertise, e-payment expertise, and pre-purchase planning behaviour. Service quality perception, pre-purchase planning behaviour and post-purchase dissonance behaviour are more common among retired persons.

34. Word of mouth information, information from airline advertisements, internet browsing expertise, e-payment expertise, service quality perception, and post-purchase dissonance significantly differ with the respondents' travel experience.

35. Travellers with both international and domestic flight experience show more service quality perception. Brand loyalty is the least for domestic travellers. Passengers having both international and domestic flight experience showed the highest post-purchase dissonance.

36. Travellers with only international travel experience tend to discuss air travel tickets with peer groups and family members, leading to higher use of word of mouth information. As a result,

they give less importance to information from airline advertisements.

37. Service quality perception is higher among travellers with an official purpose, followed by leisure travellers and holiday/leave travellers. Holidays/leave travellers make more use of airline advertisements than travellers with an official purpose and leisure travellers.

7.3.5 Awareness of Dynamic Pricing

38. Internet browsing expertise, word of mouth information, price-saving orientation, and service quality perception are significantly associated with awareness of dynamic pricing.

39. Hedonic motivation, information from airline advertisements, and e-payment expertise are not significantly associated with awareness of dynamic pricing.

40. Awareness of price dynamics is significantly associated with pre-purchase planning behaviour, post-purchase dissonance behaviour, positive attitude, and negative attitude towards airline dynamic pricing.

41. Internet browsing expertise has a small influence on awareness of dynamic pricing (f^2>0.02).

42. Word of mouth information and price-saving orientation significantly influence awareness of dynamic pricing (f^2>0.02).

43. Awareness of price dynamics significantly impacts pre-purchase planning behaviour and post-purchase dissonance behaviour (f^2>0.02).

7.3.5.1 Pre-purchase Planning Behaviour

44. Hedonic motivation, information from airline advertisements, price-saving orientation, and awareness of price dynamics are significantly associated with pre-purchase planning behaviour.
45. Internet browsing expertise, word of mouth information, e-payment expertise, and service quality perception are not significantly associated with pre-purchase planning behaviour.
46. Pre-purchase planning behaviour is significantly associated with a positive attitude towards airline price dynamics but not significantly associated with a negative attitude towards airline dynamic pricing.
47. Hedonic motivation has a small effect on pre-purchase planning behaviour (f^2>0.02).
48. Awareness of dynamic pricing significantly affects pre-purchase planning behaviour (f^2>0.02).
49. Information from airline advertisements and price-saving orientation have a large significant effect on pre-purchase planning behaviour (f^2>0.35).

7.3.5.2 Post-Purchase Dissonance Behaviour

50. Hedonic motivation, price-saving orientation, service quality perception, and awareness of price dynamics are significantly associated with post-purchase dissonance behaviour.
51. Internet browsing expertise, word of mouth information, information from airline advertisements, and e-payment expertise are not significantly associated with post-purchase dissonance behaviour.

52. Post-purchase dissonance behaviour is significantly associated with positive and negative attitudes towards airline dynamic pricing.

53. Hedonic motivation, price-saving orientation, and service quality perception significantly affect post-purchase dissonance behaviour (f^2>0.02).

54. Post-purchase dissonance behaviour significantly affects negative attitudes towards airline price dynamics (f^2>0.117). However, it has a small effect on positive attitudes towards airline price dynamics (f^2>0.02).

7.4 Implications of the Study

The study provides theoretical and practical implications to various stake holders such as airline companies, air passengers, air passenger associations, travel agencies, online booking websites, civil aviation authorities, government, research world, etc.

7.4.1 Theoretical Contributions

One of the major implications of this study is its contribution to the existing literature by covering the airline price dynamics of the Indian airline industry, which was primarily an area ignored by the researchers. The study provides inferences on the antecedents of forming attitudes on price dynamics. The study conducted a detailed analysis of the factors contributing to the attitudes towards airline price dynamics. Such a study is sporadic in the literature, especially in the airline industry. The study also shed light on the dilemma of the passengers in forming an attitudes towards airline price dynamics. If left with the chances of expected benefit, there is a major social risk of underestimating exploitation. Moreover, the ethical dilemma felt by the respondents in fixing their attitudes towards dynamic pricing put forth

serious questions in front of social science researchers. Transparency and chances of relative advantage may lead to social silence on exploitation, harming society's long-term interest.

7.4.2 Managerial Implications

The present study gives various implications on the managerial aspects to the government and airline companies. Comparatively, a new pricing strategy, which was implemented along with the introduction of low-cost flights, has paved some dilemmas in forming an opinion in the minds of travellers. From the literature and questions raised in the Parliament, it is clear that excessive pricing has been coming up as an issue. In this study also, people find it challenging to make an opinion, even when there exists high dispersion in prices. The dissonance-reducing psychological behaviour is found as a reason for this phenomenon. Literature shows that this is due to the chances of the relative advantage of benefitting from the pricing strategy. Air passenger associations can provide more price-saving tips to the members based on the findings of this research.

7.5 Suggestions

Based on the research findings on airline price dynamics, the following suggestions are made:

1. Even though the passengers do not raise much criticism of excessive pricing on domestic airline tickets, most of the respondents take a neutral approach to dynamic pricing. This neutral approach is due to the chances of relative advantage in the way of low priced tickets or ensuring a ticket on emergency. This neutral approach and the unorganised formation of airline passengers increase the chances of exploitation. This supports the theory of being silent on exploitation that gives relative benefit

(Zalta, 2023). This situation invites the intervention of the Government to control the exploitative situation through the imposition of ceiling on maximum price.

2. Service quality perception significantly influences awareness of price dynamics, which is significantly associated with pre-purchase planning behaviour, post-purchase dissonance behaviour, positive attitude, and negative attitude towards airline price dynamics. Hence, improving service quality in various aspects of airline operations will help the airline to get more customers.

3. Airline companies and travel agencies may invest in training programs for staff to enhance customer service. They may collect and act upon customer feedback to continuously improve service quality.

4. Information from airline advertisements is not significantly associated with awareness of price dynamics. Hence, airline companies may improve the quality and reliability of advertisements. For instance, if the link of an advertisement on low-cost airfare does not lead exactly to those low-cost tickets, the advertisement is unreliable. These kinds of low-cost flight advertisements are typical from the airline side.

5. Airline companies and travel agencies can encourage satisfied customers to share their positive experiences through social media or review platforms as to improve word of mouth communication. Implementation of a referral program that rewards customers for recommending their airline to others will also improve the air passenger traffic.

6. Pre-purchase planning behaviour significantly affects positive attitudes. Providing more information about the number of seats at a given price and the number of seats booked would bring more transparency to the dynamic pricing. Information on anticipated price hikes and anticipated demand will improve the airline's reputation. Customers can also reduce their dissonance by ensuring tickets at an affordable price, by planning the travel well in advance.
7. Pre-purchase experience can be improved through the development of user-friendly tools on the website or app of travel agencies that allow customers to easily compare prices across different dates and times. Inclusion of data analytic facilities in such applications to understand customer preferences, will help the travel agencies to make tailor made promotions.
8. Post-purchase dissonance behaviour influences negative attitude. Hence, airline companies should provide more dissonance reduction activities such as frequent flier programs, reducing penalties for date change, bringing transparency in the pricing, etc.
9. The present feedback system of post-travel experience may be strengthened by implementing a system to gather post-purchase insights and address any dissatisfaction promptly. Offering post-purchase benefits, like discounts on future bookings, will enhance customer satisfaction and reduce dissonance. Airline companies and travel agencies should provide clear and accessible customer support channels to address any concerns or questions after the purchase.

10. Designing of marketing campaigns that emphasize the enjoyment and positive experiences associated with air travel along with the creation of loyalty programs that offer exclusive perks for frequent flyers will enhance the hedonic motivation. Enhancing the user experience on online platforms, ensuring easy navigation and a seamless booking process will add to this and also to improve the browsing expertise. Companies can provide online tutorials or guides for customers to maximize their efficiency in finding the best prices and deals. Implementing QR code payment system will also improve this experience.
11. Price saving orientation influences pre-purchase planning. Hence offering special promotions, discounts, or bundled packages for budget-conscious customers are advisable. Companies may clearly communicate cost-saving opportunities, such as advance booking discounts or package deals to the prospective customers.
12. Increased adverse attitude towards airline price dynamics can invite protest from the public as happened in USA in 2002 (Goetz, 2002). Awareness of airline price dynamics reduces negative attitudes. This is because the awareness leads to acceptance of the dynamic pricing system. Airline companies can provide more transparency in pricing mechanisms to reduce customer dissonance.

7.6 Scope for Further Research

The present study brings forth the following research gaps, which provide new research avenues in many fields. The listed below are some of the research areas to be considered.

1. Forming a positive attitude in areas of relative advantage is a serious situation that may harm society. Therefore, further research

is suggested on the consequences of such exploitative situations of relative advantage in the society. The forming factors, the remedial measures, the role of society, and the role of government in controlling such practices may be included in the study.

7.7 Conclusion

Airline price dynamics in India is an area of research that researchers have rarely addressed. The study has shed some light on the awareness of and attitudes towards airline price dynamics. The antecedents of attitudes towards airline price dynamics depend on the awareness of airline price dynamics. Airline passengers have a higher level of awareness about the airline price dynamics. Generally, the respondents avoid dissonance-making activities like price comparisons and social media reactions. It is found that awareness of price dynamics is significantly associated with pre-purchase planning behaviour and post-purchase dissonance behaviour. Awareness of airline price dynamics and post-purchase dissonance behaviour are significantly associated with positive and negative attitudes towards airline price dynamics. Pre-purchase planning behaviour is significantly associated with only a positive attitude towards airline price dynamics. Moreover, even though there exists high dispersion due to price dynamics, travellers find it difficult to protest highly due to the ethical dilemma caused by the chances of relative advantage.

Appendix

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