

Business Policy of National Scheduled Airlines for Sustainability of National Airlines in Indonesia

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Abstract

The aviation industry is one of the transportation services that is experiencing rapid growth in line with the development of the global economy and technology. This rapid growth makes the aviation transportation service industry more varied, so that in its sustainability it creates competition between them; especially in terms of price and service competition. In addition to price and service, there is another problem, namely safety which is a determining factor for the sustainability of this aviation transportation business. This study uses a combination of a quantitative approach using Structural Equation Modeling (SEM) and a qualitative approach through in-depth interviews with airlines and regulators. Data analysis used the Analysis of Moment Structures (AMOS) program for hypothesis testing and NVivo for policy analysis. Data comes from primary data through focus group discussions (FGD) and secondary data sources taken from airline financial reports from 2014-2019. Meanwhile, the results of interviews with airlines and regulators processed with the NVivo program indicate that the determination of the lower limit fares must be regulated by the Government (as regulator) so that price predators do not occur. Airlines consider that price competition can sometimes be unhealthy. Safety is also a major factor for airlines for the sustainability of the business itself. Meanwhile, from the regulator's point of view, stating that the world of aviation is largely determined by the level of security and safety of the flight itself; both on the ground and in the air. Various efficiency efforts can be made, but safety and security standards should not be lowered in the slightest. The regulator has controlled the above factors and according to

the regulator there needs to be a synergy with all related parties, including the aviation industry itself, the manager, and of course the public's understanding of safety itself.

Keywords: Bussines Policy Analysis, Commercial Airline, Safety and Sustainability Business, Qualitative and Quantitative Methods, Economic Growth.

Introduction

In the Aviation Industry, there are two important aspects of airline operations, namely safety and commercial (see among others: Hartmann, 2000; Kuhn, 2009; Amana, 2015; Maxwell & Bright, 2016; Jongsaguan & Ghoneim, 2017; Pandey, 2017; Kalemba & Campa-Planas, 2019; and Fardnia, et.al., 2020;). These two aspects are the two different things which are marked by different regulations that underlie their operations. The safety aspect is regulated in international rules (Annexes and documents from the International Civil Aviation Organization/ICAO) which are adopted into national regulations, namely the Civil Aviation Safety Regulation (PKPS or Civil Aviation Safety Regulation/CASR). The safety aspect rests on the airworthiness of an aircraft, aircraft maintenance, flight path condition and flight traffic management (navigation), airport condition, cockpit crew condition, fuel availability, and others (Hartmann, 2000; Jongsaguan & Ghoneim, 2017; and Sturm, 2007). These aspects are absolute and must be implemented by all stakeholders in aviation, including the government authority (as the regulator) and airlines with the principle of go-no go items (Gong, 2006).

Meanwhile, the commercial aspect is regulated in Law no. 1 of 2009 concerning the Aviation, where the commercial aspect is influenced by the market (society), regulations from international aviation organizations, and other socio-economic factors such as: the price of fuel, the price of spare parts, employee salaries, currency exchange rates, the level of community demand, social conditions (e.g. school holiday season, religious days, Christmas, and New Year) and so on. In addition, the commercial aspect of flight is also influenced by operational aspects such as: flight slots, flight routes, local airport conditions (aircraft type, runway specifications, apron capacity, airport operating hour, availability of fuel for refuelling and so on) (see: Amana, 2015; Fardnia, et.al., 2020).

In aircraft operations, the largest cost is the fuel consumption, followed by labour costs, maintenance costs and other costs. In other words, the more efficient use of fuel in flight operations (safety) will give impact on ticket prices (commercial) for passengers (Budihadianto, 2016; Achmad, et.al., 2016; 2016a; and Sarrah, et.al., 2020). The national aviation industry in year to year continues to fluctuate as showed by the total number of fluctuations (domestic and international) of passengers carried by national scheduled airlines as shown in table 1 below.

Table 1

Total Number of Airplane Passengers 2015-2019 (persons)

Year	Number of Domestic Passengers	Number of International Passengers	Total
2015	76,628,867	25,224,456	101,853,323
2016	89,385,365	27,460,950	116,846,315
2017	96,890,664	31,953,301	128,446,843
2018	101,961,268	36,326,544	138,289,170
2019	79,466,559	37,278,343	116,744,902

Source: Directorate of Air Transportation Directorate General of Civil Aviation (2020)

Meanwhile, domestic scheduled commercial transport production data can be seen in Table 2. The growth of domestic passengers was also fluctuated, as was the growth in seat capacity for departure of domestic routes from airlines.

Table 2

Domestic Scheduled Commercial Air Transport Production (Passengers)

Description	Unit	2015	2016	2017	2018	2019
Aircraft kilometres	0	500,323	568,622	618,771	672,614	578,201
Aircraft departure	Number	659,091	763,980	829,615	875,017	729,446
Aircraft hours	Number	981,278.50	1,114,792.39	1,231,134.47	1,281,718.48	1055774.31
Passenger carried	Number	76,628,867	89,385,365	96,890,664	101,961,268	79,466,559
Freight carried	Ton	564,048	604,343	587,017	651,184	577,806
Passenger – KM performed	0	65,171,677	73,913,751	78,998,328	86,200,029	70,233,668
Seat KM available	0	82,740,796	94,106,084	101,861,213	109,811,847	93,977,386
Passenger L/F	%	78.77	78.54	77.55	78.5	74.73
Passenger growth	%	0.17	16.65	8.40	5.23	-22.06
Aircraft departure Growth	%	3.56	15.91	8.59	5.47	-16.64

Source: Directorate of Air Transportation Directorate General of Civil Aviation (2020)

The majority of the domestic passenger market segment from 2018 until 2019 is still controlled by Lion Air Group, which consists of Lion Air, Batik Air and Wings Air with a total of 50% market share. Garuda Indonesia Group (Garuda Indonesia and Citilink) with a total market share of 35% ranks second. Then it is followed by Sriwijaya Air Group (Sriwijaya Air and NAM Air) with 10% market share in third place. Other airlines only have market shares below 5%. Domestic scheduled commercial air transport networks and routes in 2019, also continued to experience significant developments. Throughout 2019, permits were issued for 444 domestic routes. It increased 38 routes compared to the previous period.

Currently, Indonesia's national aviation have reached the important stage in the safety sector. This was marked by the increase in the Indonesian aviation safety category by the United States aviation authority (Federal Aviation Administration / FAA) from Category 2 to Category 1 on August 15, 2016. In October 2017, ICAO conducted a Universal Safety Oversight Audit Program (USOAP) in 8 areas of aviation. Indonesia's EI scores in these 8 areas jumped to 80.34% compared to the previous audit with details in table 3 below.

Tabel 3

USOAP Indonesia's 2017 Effective Implementation (EI) Value

No.	Categories	EI Value
1	Primary aviation legislation and associated civil aviation regulations	71.43%
2	Civil aviation organizational structure	69.23%
3	Personel licensing activities	75%
4	Aircraft operations	87.5%
5	Airworthiness of civil aircraft	90.91%
6	Aerodromes	72.73%
7	Air navigation services	84.09%
8	Accident and serious incident investigations	63.73%
Average		80.34%

Source: Final Report of the Directorate General of Civil Aviation (2019)

The current national aviation safety condition is in good condition and is even above the world aviation safety average. However, it is vice versa to the (commercial) side. In the last five years, there has been a paradox since 2015 until 2019, where at the end of every year most of the financial statements of airlines always record unfavourable conditions. This can be seen from the following data: (i). The financial report of Garuda Indonesia Group in 2018 which states that a net loss of US\$175.02 million. In 2019, Garuda Indonesia Group recorded a profit of only 6.99 million US dollars (Kontan, 2019). In previous years, Garuda Indonesia's financial statements used to fluctuate with a record that the amount of loss was greater than the amount of profit that had ever been earned (Garuda, 2019); (ii). The financial report of Indonesia AirAsia group in 2018 which states that a loss of IDR 907 billion and in 2019 a loss of IDR 157.4 billion (ir-id.aaid, 2020); (iii). An open statement from Sriwijaya Air's management regarding financial difficulties due to a debt of IDR 2.46 trillion to Garuda

Indonesia Group, PT. Pertamina, Angkasa Pura I and II, and Airnav Indonesia; and (iv). Ticket sales for the majority of national airlines from the middle of 2018 to the end of 2019 with the upper limit fares under the pretext of restoring the company's unbalanced cash flow between income and expenditure.

From the background, the objectives of this research are as follows: (i). Knowing and analysing how the influence of public perception (which consists of price, safety, company reputation, service quality, customer satisfaction, customer trust) on customer loyalty both directly and indirectly for the sustainability of the aviation industry; (ii). Knowing and analysing how airlines maintain business continuity in the national aviation industry; and (iii). Knowing and analysing the role of the Government in regulating by supervising the Aviation Industry.

Literature Review

Public Policy in National Aviation and Its Sustainability

The Government of the Republic of Indonesia, as the national aviation regulator, made Law no. 1 of 2009 concerning Aviation which includes matters related to safety, security, and aviation business in general. The Indonesian government also makes public policies on the Civil Aviation Safety Regulation (CASR), National Aviation Security Program (NASP), and regulations related to aspects of the aviation business. CASR and NASP are actually derivatives of international regulations which is made by the International Civil Aviation Organization (ICAO), namely ICAO Annexes and documents, while the aviation business regulations are applied only nationally. The government supports the liberalization of aviation to create broad competition without forfeiting the national sovereignty. With this in mind, the Government issues policies or regulations, such as those contained in Law No. 1 of 2009 (Article 108), namely: (i). All or most of the capital must be owned by Indonesian legal entities or Indonesian citizens; and (ii). If the capital is divided into several owners of capital, one of the owners of national capital must remain larger than the entire foreign capital owner (single majority).

There are many studies that have been carried out related to sustainability in the aviation sector, including by Kaszewski & Sheate (2004); Alyami (2015); Koc, and Durmaz (2015) concluded by Sarrah, et.al (2020) that the growth of the civil aviation sector, including the very high growth of passenger traffic and cargo transportation, had increased stakeholder awareness of environmental impacts.



Figure 1. Aviation Sustainability Concept

Source: Sarrah, et. al (2020)

Aviation Safety Concept

International Civil Aviation Organization (ICAO) doc. 9859 (in Chacin, 2014) states that 'safety is the state in which the possibility of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management'. According to Hutabarat (2019), flight safety is everything about compliance and conformity. All actions are complied with regulations and conformed to safety standards. Every two years or at the request of the member concerned, ICAO conducts a Universal Safety Oversight Audit Program (USOAP). The audit is carried out in 8 areas, namely: (i). Primary aviation legislation and associated civil aviation regulations; (ii). Civil aviation organizational structure; (iii). Personnel licensing activities; (iv). Aircraft operations; (v). Airworthiness of civil aircraft; (vi). Aerodromes; (vii). Air navigation services; and (viii). Accident and serious incident investigations.

The results of the audit were in the form of the percentage of compliance values for implementing (Effective Implementation /EI) flight rules based on the annexes and SARP. ICAO sets the average EI for member countries at 63%. There is no sanction for members who have an EI below 63%, but improvements will be made so that the EI value is at or above the world average. The EI value is also used by other aviation authorities to enforce policies related to their flights. For example, the United States Aviation Authority (Federal Aviation Administration/FAA) and the European Union (EASA) who use the EI value of a country to categorize the country's aviation safety.

Indonesia Aviation in Covid-19 Pandemic Era

During the Covid-19 pandemic, to prevent the spread of Covid-19 in Indonesia, the Indonesian government issued several policies, namely Large-Scale Social Restrictions (PSBB), Adaptation of New Normal (AKB) and Restrictions Enforcement on Community Activities (PPKM). In brief, it aims to prevent people from being infected by virus through limiting the citizens' movement (limitation on all transportation sector including air transport). The impact of the Covid-19 pandemic on aviation safety is related to standart operating procedures (SOP) of safety oversight which is supervised by inspectors from DGCA to flight operators such as airlines, airports, Air Navigation and other operators. Safety oversight can no longer be fully carried out on-site (visit in the field), but must be combined with off-site methods using information telecommunications technology. This is due to the policy of restricting the people (or passengers) movement, including aviation inspectors. Many inspectors were infected to Covid-19, thus reducing the number of inspectors on duty.

The impact on the aviation business is number of domestic flight passengers in 2020 decreased to 35,393,966 passengers or decreased by 50% compared to 2019 and international passengers decreased to 7,189,587 passengers or decreased 80% compared to 2019. Domestic air freighter decreased by 25.5% compared to 2019 which was only 430.752 tons and international air freighter decreased by 37.5% compared to 2019, which was only 324,442 tons. The number of flights was also reduced, for domestic flights become 44.6% and international become 73.1%.

The bad financial performance of airlines in the 2015-2019 period also bring had a major impact on the condition of airlines when they had to deal with the Covid-19 pandemic. Garuda also lost Rp35.38 trillion in 2020. In the first quarter of 2021, Garuda lost US\$384.35 million. On average, Lion Air Group only operates 10-15% flights of normal capacity and lays off 25%-35% of its 23,000 employees. Lion Air Group and Garuda Indonesia Group were also facing bankruptcy claims from several of their debtors. Airport operator PT. Angkasa Pura I lost Rp.

2.3 Trillion and PT. Angkasa Pura II lost Rp. 2.43 Trillion. MRO Garuda Maintenance Facility lost Rp.4.7 Trillion. It can be showing that all operators, including airlines, airports and MROs, suffered losses during the Covid-19 pandemic. The impact of the decline in flights due to the pandemic on the national economy. Indonesia's economic growth in 2020 was -2.07% and the air transportation sector was contracted by -53.81%. However, growth in semester 1 of 2021 grew 3.1% compared to semester 1 of 2020. But, in the second quarter of 2021, Indonesia's economic growth is accelerated by 7.07% year on year.

Previous Research

Several previous studies that are closely related to this research include Bearden and Teel (1983); Cronin & Taylor (1992); Caruana (2002); Dick & Basu (1994); Anderson (1998); Selnes (1993) who concluded that customer satisfaction is an important determinant of customer loyalty. Akbar & Prevaez (2009) stated that service quality, trust, and customer satisfaction have a significant effect on customer loyalty. Namukasa, (2013) in his research on airlines in Uganda and Pi & Huang, (2011) in his research on airlines in Taiwan found that passenger satisfaction has a significant effect to passenger loyalty.

Meanwhile, several previous studies that were very closely related to safety variables included: Kalemba & Campa-Planas (2019), which examined the relationship between safety and economic and financial performance in the aviation industry. The conclusions of the study are: (i). Safety is an important element of the air transport sector. The aviation industry faced many challenges to maintain high safety standards, would will certainly affect the growth and future of the airline; (ii). The economic consequences of accidents (accidents, serious incidents and incidents) would have a negative impact on both passengers and the sustainability of the company in general. Therefore, every company tried to provide high safety standards to ensure the safety of the passengers; (iii). There was a significant effect between safety indicators on airline revenue, but there was no (non-significant) effect between safety indicators on company profitability.

Other research is from Hartmann (2000), Kuhn (2009) in the US, Amana (2015) in India, Maxwell & Bright (2016) in South Africa, Wardhana, et.al (2017) in the Indonesian aviation industry. Pandey (2017); Fardnia, et.al (2020) concluded that flight safety had always been the main concern of every airline. While other research is related to the relationship of financial performance.

The findings in the studies mentioned above are one of the starting points for this research. The focus of this research is to find a breakthrough so that there is a balance between meeting costs in the safety aspect and getting income as well as profits from the commercial aspect so that the national airline business can run well and sustainably.

Hypotheses

Based on the description above, the hypotheses of this research is as follows.

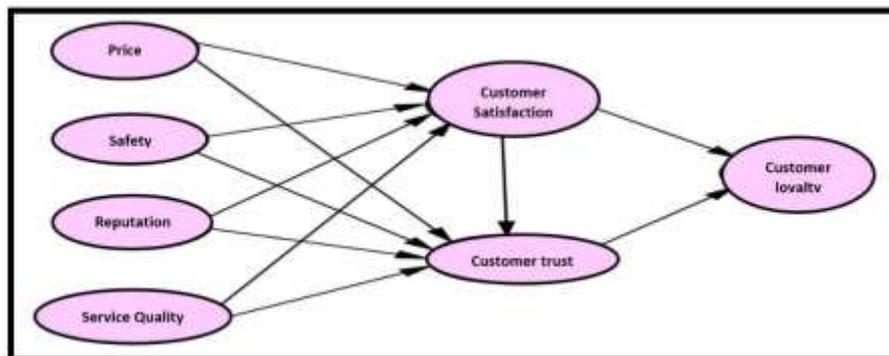


Figure 2. Conceptual Framework of Consumer Perspective

Source: Author (2021)

The hypotheses are based on the study of theory and conceptual framework models. There are 11 direct hypotheses in this study:

H1: There is a significant and positive effect of Price on Customer Satisfaction

H2: There is a significant and positive effect of Price on Customer Trust

H3: There is a significant and positive effect of Safety on Customer Satisfaction

H4: There is a significant and positive effect of Safety on Customer Trust

H5: There is a significant and positive effect of Reputation on Customer Satisfaction

H6: There is a significant and positive effect of Reputation on Customer Trust

H7: There is a significant and positive effect of Service Quality on Customer Satisfaction

H8: There is a significant and positive effect of Service Quality on Customer Trust

H9: There is a significant and positive effect of Customer Satisfaction on Customer Trust

H10: There is a significant and positive effect of Customer Satisfaction on Customer Loyalty

H11: There is a significant and positive effect of Customer Trust on Customer Loyalty

Research Methodology

This research was designed using two methods, namely quantitative methods and qualitative methods by which data collection will be carried out through primary and secondary data collection. Qualitative research is a type of conclusive research that has the main goal to describe something, and as usually an explanation of market characteristics or functions (see Sekaran, 2013; Creswell, 2007) Meanwhile, the quantitative approach is done by conducting tests that aimed at testing hypotheses regarding the effect of price, safety, company reputation, service quality, customer satisfaction, customer trust on customer loyalty, either partially or simultaneously to this research. The contribution of the researcher in the research design is to form a conceptual framework model of the research, formulate hypotheses, operate research variables, collect relevant data, and analyse research results. The quantitative analysis unit of this study is the 6 major airline companies that were popular in Indonesia, namely: Indonesia AirAsia, Lion Air, Sriwijaya Air, Garuda Indonesia, Citilink, and Batik Air. Furthermore, the observation unit of this study are individuals (customers) who used the services of 6 airlines. that. The time dimension used is cross-sectional, which means that the data collection used in this study was only collected once or one shot (Sekaran & Bougie, 2013).

Data collection is done by doing field study (or survey) through the distribution of questionnaires directly to respondents (airplane passengers). The questionnaire sheet contains a number of questions related to airline ticket prices, airline reputation, airline service quality, airline customer loyalty, airline customer satisfaction, and airline customer trust. The questions or statements in the questionnaire will be the basis for conducting descriptive analysis. Next, several tests were done toward the association or causal hypothesis. The data were analysed using the Structural Equation Modeling (SEM) technique which is based on the evaluation of the interdependence relationship between variables.

This study combines opinions (Gay 1996:125) which explains that the population is less than 100, then the sample is the entire population; if the population is around 500, then a 50% sample is selected; if the population is around 1500, then the sample is taken 20%; if the population is around 5,000, the population size is hardly relevant and a sample size of 400 would be perfectly adequate and the opinion (Hair, et.al., 2010) states that neither too small nor too large a sample size is recommended, the recommended number of respondents in the sample ranges between 100-200 or a minimum of 5 (five) and a maximum of 10 (ten) samples for each parameter (indicator) observed. This study took the highest number as the minimum number of samples

There were 44 indicators that were observed, so the minimum samples that could be used (Hair, et.al., 2010) were: $n = \text{Number of parameters} \times 10 = 44 \times 10 = 440 \text{ respondents}$

Based on the opinion (Gay 1996:125) which explains that if the population is around 5,000, the population size is almost irrelevant and a sample size of 400. Therefore, this study setted a minimum sample of 400 samples (the highest number of both opinions) and collected at several reputable airports: SoekarnoHatta, Juanda, Sultan Hasanuddin, Minangkabau, and Kualanamu.

Analysis of Results and Discussion

Description of Research Object

The aviation industry is an industry that is included in the service industry category. The service industry according to Zeithamal & Bitner (2009) is an industry that carries out economic activities and produces products that provide added value that is intangible (such as entertainment, enjoyment, facilities, healthy, relaxing, etc.) production time. According to Law (UU) No. 1 of 2009 concerning Aviation, the aviation industry plays a role in providing transportation services for goods/ cargo, passengers and/or post for one or more trips from one airport to another or several airports using aircraft transportation modes. The aviation industry is also a capital, labour, and fuel intensive industry. In addition, this industry also has the potential to become a dangerous industry because it involves human life (Abdulgani & Akyuwen, 2010).

From the statements above, it can be seen that the safety factor is the main factor in the aviation business, given that flight operations can be a dangerous activity because it violates human nature as creatures that live on land. There are several parties in the aviation industry, namely business actors (operators), government (regulators), and related agencies (stakeholders).

Indonesian Airline Business

By the time, there was an unhealthy competition, namely price wars between airlines in Indonesia. The unfair competition resulted in the airline's financial condition weakening and the aviation safety principles were being ignored. Between 2000 and 2007, there were many

plane crashes. The financial condition of airlines continued to weaken which also made many airlines go bankrupt. To maintain healthy competition by prioritizing the safety aspects, security, service comfort and business continuity, the Government made Law no. 1 of 2009 in which Article 118 is re-regulated regarding the number of ownership and control of aircraft on airlines.

There are five external environmental factors that influence the aviation industry and cannot be separated one by one, as shown in the image below.



Figure Five External Environmental Factors That Affect the Aviation Industry

Source: Wismono (2019)

Profile of Respondents

In this study, 619 respondents consisting of 360 male respondents (56.5%) and 269 female respondents (43.5%) were collected. Based on age, respondents of 26-35 years old (220 respondents) occupied the first place, followed by respondents of 19-25 years old (176 respondents) in the second place, respondents of 36-50 years old (160 respondents) in the third place, respondents of 51- 60 years old (55 respondents) in the fourth place, and finally respondents of > 60 years old (8 respondents) in the last place.

Based on occupation, the first place was filled by "Private Employee" (155 respondents), followed by "State Civil Servant/ABRI" (144 respondents), "Entrepreneur" (133 respondents), "Student" (110 respondents), and "Housewife Stairs" and "Others" amounted to 39 and 38 respondents, respectively. In education category, there was "Bachelor" (267 respondents) in the first place, followed by "High School/Equivalent" (223 respondents), "Diploma" (75 respondents), and "Postgraduate" (54 respondents). Based on airlines used by the respondents, "Batik Air + Lion Air" (273 respondents) were in the first place, "Citilink Air" (151 respondents) was in the second place, "Garuda Indonesia" (147 respondents) was in the third place, "Indonesia AirAsia" (26 respondents) was in the fourth place, and "Sriwijaya Air" (22 respondents) was in the last place. Based on flight frequency, the first group was respondents with < 4 flights (247 respondents), the second group was respondents with 4-6 flights (227 respondents), the third group was respondents with 7-9 flights (77 respondents), and the fourth group was respondents with ≥ 10 flights (68 respondents). Based on the reason or

purpose of trips, "Visiting Family/Relatives" (220 respondents) was in the first place, followed by "Work Trip" (212 respondents), "Business Trip" (64 respondents), "Vacation" (62 respondents) and "Others" (61 respondents).

Furthermore, based on income, respondents with income range of "<Rp5,000,000" (228 respondents) were in the first place, followed by respondents with income range of "<Rp5,000,000 –

Rp7,500,000" (190 respondents), respondents with income range of "≥ Rp10,000,000" (101 respondents), and finally respondents with income range of "Rp7,500,000 – Rp10,000,000" (100 respondents). Based on location, the first place was at Minangkabau International Airport (151 respondents), followed by Soekarno-Hatta International Airport (129 respondents), Juanda International Airport (122 respondents), Sultan Hasanuddin International Airport (116 respondents), and Kuala Namu International Airport (101 respondents). Based on the city, Jakarta (260 respondents) occupied the first place, followed by Surabaya (51 respondents), Bali (48 respondents), Makassar (44 respondents), and Medan (36 respondents).

Results and Discussions Analysis by Using SEM

After conducting a series of questionnaire assessment (validity and reliability) as well as the suitability of the model assessment (normality, RMSEA, RMR, CFI, TLI, AGFI, CMIN, and GFI; to get a fit model), the hypothesis testing was carried out successively from the first to the fifteenth hypothesis. Structural Equation Model (SEM) was applied in the data analysis by using a software processing tool, the Analysis of Moment Structure (AMOS) 23, developed by James L. Arbuckle. Direct hypothesis testing in this study was performed for the 11 proposed hypotheses and the processing results are shown in table 6., below.

This can be concluded that hypothesis 1: which states that price has a positive and significant effect on customer satisfaction is proven. These results are in line with the research of Subaebasni et al (2019); Febryanto & Bernarto (2018); Sujipinyo & Chaipoopirutana (2014), which prove that price affects customer satisfaction. The results show that price is the determining variable that affects customer satisfaction, so that the tariff policy carried out by the airline service industry is a win-win solution policy for customers and airlines. Hypothesis 2: which states that price perception has a positive effect on customer trust is not proven. The results of the study are not in line with the results of the previous studies where Chen & Chang (2013), Mulcahy, et. al (2015); Issock, et. al (2020) state that price affects customer trust. The results of this study indicate that the public is actually aware that it is not only the price variable that determines the customer trust. People prefer prices as one airline competes with other airlines. Hypothesis 3: which states that safety has a positive effect on customer satisfaction is not proven. This result is not in line with research conducted by Albonaemi & Hatami (2015); Ringle et. al (2017) that state airline passenger safety has a positive effect on customer satisfaction. This shows that the awareness of the Indonesian people about the importance of safety in aviation is low. This is also supported by previous research by Wardhana, et.al (2017) regarding the determinants of consumer preferences in the Indonesian aviation industry. The results state that there are three determining factors for the Indonesian people in determining the use of airlines, namely prices, services, and the image of the airline. Hypothesis 4: which states that airline safety has a positive effect on customer trust is not proven. The results of this study are not in line with research conducted by Depaa & Jayaraman (2017); Lassoued & Hobbs (2015) which suggest that safety and

security have a strong effect on customer trust. This results is closely related to the results of hypothesis 3 which show that the understanding of the Indonesian people towards aviation safety is low.

Table 6

Direct Hypothesis Testing (Direct Effect)

	Theory Hypothesis	Estimate	C.R.	p-value	Results and Conclusions
H ₁	There is a positive and significant effect of Airline Ticket Prices on Customer Satisfaction	0.3393	4.896	0,000	In Line with the Hypothesis
H ₂	There is a positive effect of Airline Ticket Prices on Customer Trust	-0.0138	-0.253	0,399	Not in Line with the Hypothesis
H ₃	There is a positive effect of Airline Safety on Customer Satisfaction	-0.0752	-1.139	0.127	Not in Line with the Hypothesis
H ₄	There is a positive effect of Airline Safety on Customer Trust	-0.1081	-2.057	0.019	Not in Line with the Hypothesis
H ₅	There is a positive effect of Company Reputation on Customer Satisfaction	0.0575	0.7648	0.222	Not in Line with the Hypothesis
H ₆	There is a positive effect of Company Reputation on Customer Trust	0.2180	3.6369	0.000	In Line with the Hypothesis
H ₇	There is a positive in effect of Service Quality on Customer Satisfaction	0.5436	7.4337	0.000	In Line with the Hypothesis
H ₈	There is a positive effect of Service Quality on Customer Trust	0.4399	6.6518	0.000	In Line with the Hypothesis
H ₉	There is a positive effect of Customer Satisfaction on Customer Trust	0.4205	7.8447	0.000	In Line with the Hypothesis
H ₁₀	There is a positive effect of Customer Satisfaction on Customer Loyalty	0.1594	1.8731	0.030	In Line with the Hypothesis
H ₁₁	There is a positive effect of Customer Trust on Customer Loyalty	0.6616	7.7407	0.000	In Line with the Hypothesis

Source: processed data (2021)

Hypothesis 5: which states that reputation of the company has a positive effect on customer satisfaction is not proven. This study is not in line with the previous research conducted by Andreassen & Lindestad (1998); Loureiro & Kastenzholz (2011) which found that there is a

positive relationship between company reputation and customer satisfaction in other service sectors. Hypothesis 6: which states that the reputation of the company has a positive and significant effect on customer trust is proven. This is in line with the research of Nguyen et al. (2013) in his research on credit unions in Canada that find customer trust is a mediating variable between customer reputation and customer loyalty and there is a positive and significant relationship between company reputation and customer trust. Hypothesis 7: which states that service satisfaction has a positive and significant effect on customer satisfaction is proven. The results of this study are in accordance with the research of Namukasa (2013); Saha & Theingi (2008); Archana & Subha (2012); Subrahmanyam (2017) Boonlertvanich (2018); Yilmaz (2018) which prove that service has an effect on satisfaction. Hypothesis 8: which states that service satisfaction has a positive and significant effect on customer trust is proven. This study is in line with

Hsieh & Hiang (2004); Doney & Cannon, 1997); Chou, (2014), which proves that there is a positive and significant effect between service quality and customer trust. Hypothesis 9: which states that customer satisfaction has a positive and significant effect on customer trust is proven. This shows that customer trust plays a role as the key to success in continuing the business, especially in the service sector. If the company is not able to build and maintain customer trust, it is very difficult for the company to maintain the trust. This study is in line with the research of Chinomona & Sandada (2013) who found that there is a positive and significant relationship between customer satisfaction and customer trust. Hypothesis 10: which states that customer satisfaction has a positive and significant effect on customer loyalty is proven. This research is in line with research conducted by Boonlertvanich (2018); Setiawan & Sayuti (2017); Chou (2014) which states that satisfaction affects customer loyalty. Hypothesis 11: which states that customer trust has a positive and significant effect on customer loyalty is proven. This study is in line with the research of Moorman et al (1993); Morgan & Hunt (1994); Singh & Sirdeshmukh (2000); Sirdeshmukh, et.al (2002); Akbar & Prevaez (2009); Aydin & Ozer (2005); Chinomona & Sandada (2013); Pi & Huang (2011); Setiawan & Sayuti (2017); Boonlertvanich (2018); Chiou (2004) who say that trust occurs directly and has a positive relationship with customer satisfaction and customer loyalty. Meanwhile, the indirect hypothesis testing of price, safety, and reputation variables on customer loyalty, can be seen in the following table.

Table 7

Indirect Hypothesis Testing (Indirect Effect)

	Theory Hypothesis	Estimate	C.R.	pvalue	Results and Conclusions
H ₁₂	There is a positive effect on Airline Ticket Prices on Customer Loyalty through Customer Satisfaction	0,3393*0,1594 = 0,054	1.749	0.040	Hypothesis is supported
H ₁₃	There is a positive effect of Airline Safety on Customer Loyalty through Customer Satisfaction	-0.0752*0.1594 = -0.011	0.973	0.165	Hypothesis is not supported
H ₁₄	There is a positive effect of Company Reputation on Customer Loyalty through	0.0575*0.1594 = 0.009	0.707	0.239	Hypothesis is not supported

Customer Satisfaction

H ₁₅	There is a positive effect of Service Quality on Customer Loyalty through Customer Satisfaction	$0.5436 \times 0.1594 = 0.0866$	1.816	0.034	Hypothesis is supported
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Source: processed data (2021)

Hypothesis 12 concluded that the perception of airline ticket prices has a positive and significant effect on customer loyalty which is mediated by customer satisfaction. **Hypothesis 13** concluded that the airline safety had a positive but insignificant effect on customer loyalty mediated by customer satisfaction. The processing results show that increasing airline safety will decrease customer loyalty mediated by customer satisfaction. **Hypothesis 14** concluded that company reputation had a positive but insignificant on customer loyalty mediated by customer satisfaction. Finally, **Hypothesis 15** was carried out that service quality had a positive and significant effect on customer loyalty mediated by customer satisfaction. The processing results conclude that service quality will increase customer loyalty which is mediated by customer satisfaction.

Qualitative Approach Analysis

Qualitative approach by conducting interviews and process them using NVivo was carried out to answer the formulation of problems number 2 and number 3. Coding was done by dividing informants into 4 types of categories (stakeholders) in the aviation industry, namely: Airlines and Aviation Stakeholders, Regulators, Associations and Commissions, and Airports. The following is a summary of the informants involved in the interview activities by mapping the coded nodes (pictures and tables are available if needed) on aspects

a. Airlines and Aviation

Policy Support Nodes are the largest Nodes that have the highest number of references (39), Pandemic Impacts (27), Tariff Regulations (22). This implies that, either explicitly or implicitly, the entire transcript (airline) deals more with issues related to requests for policy support. **b.**

Regulator

HR Competency Nodes have the highest number of references (16), followed by Safety Level Improvement (9), and Service Quality (9). This implies that, either explicitly or implicitly, the entire transcript (the Regulator) addresses the issue.

c. Association and Commission

The National Aviation Performance Improvement Nodes have the highest number of references (4), followed by weak flight sanctions and weak regulatory oversight, as well as service innovation, each point has 2 references. This improvement in flight performance is related to the performance of national flights, especially in terms of aircraft accidents. Weak aviation sanctions are related to supervision related to safety aspects. Weak regulatory oversight is related to the difficulty of supervision by inspectors due to the pandemic. Service innovation focuses more on aviation service business innovation.

d. Airport Aspect

Airport Revenue Reduction Nodes have the highest number of references (5), next is policy compliance and operational BEP difficulties, with 4 and 3 references, respectively. This decline in revenue is related to the impact of the pandemic which has had an impact on the airport's business aspects. Policy suitability relates to demands regarding the suitability of government policies that must be adapted to the situation. The difficulty of the operational BEP is related to the difficulty of the airport (Angkasa Pura) to cover the operational burden due to the pandemic. The infrastructure financing and bond issuance are also related to the financial impact of airports due to the pandemic.

There are 3 nodes that have a relationship between nodes between airlines and regulators, namely Airline Financial Supervision nodes with Airline HR Competence, Airline Financial Supervision nodes with Airline Risk Aspects, and Impact of Price Increases on Consumers on Service Quality with a total of 2 statements. There are 4 nodes in common between the Association and the Airport, namely the Impact of the Pandemic, Support for the Airlines Industry Policy, Lower Tariffs, Tariff Regulations, and the Role of Regulators. Furthermore, the similarity of nodes between the Association and the Airline are 14 similarity nodes (Impact of Pandemic, Support for Airlines Industry Policy, Inequality of Government

Focus, Impact of Price Increases on Consumers, Lower Tariff Limits, Airline Financial Supervision, Tariff Regulation, Market Force, Stakeholder Involvement, Increased Levels Safety, Unfair Business Competition, HR Competency, Airline Deregulation Policies, and Regulatory Roles).

Furthermore, the similarity of nodes between the Association and the Airline will be displayed, namely there are about 10 similar nodes (Pandemic Impact, Airlines Industrial Policy Support, Policy Inconsistency, Market Protection, Lower Tariffs, Airport Assistance, Tariff Regulation, Incentives, Slot Policy, and Regulators Role). There are 6 similar nodes between the airport and the regulator, namely the impact of the pandemic, support for the airline industry policy, policy inconsistency, tariff regulation, slot policy, and the role of the regulator.

Conclusions, Implications and Policy Recommendations**Conclusions**

1. Based on the results of the quantitative analysis method, it was obtained that the direct effect of variables such as: price has a positive and significant effect on customer satisfaction but positive and insignificant on customer trust; Safety has a positive but insignificant effect both on customer satisfaction and customer trust; Reputation of the company has a positive but insignificant effect on customer satisfaction but has a positive and significant effect on customer trust; Service quality has a positive and significant effect both on customer satisfaction and on customer trust; Customer satisfaction has a positive and significant effect both on customer trust and on customer loyalty; and Customer trust has a positive and significant effect on customer loyalty. For the indirect effect, the research results show that price and service quality had a positive and significant effect on loyalty mediated by customer satisfaction. However, airline safety and company reputation partially had a positive but insignificant effect on customer loyalty mediated by customer satisfaction. Based on the results, it is known and clear that the price and service quality is a determining variable in creating consumer loyalty to an airline.

The safety factor had a positive but insignificant effect on customer loyalty. It can be concluded that consumers only give their attention to the price and service quality factors

and assume that safety is fully the responsibility of the Airline and the Government. It is suitable with Maxwell & Bright (2016) which stated that safety and frequent flyer programs had a positive effect on passengers, but had no significant effect on their satisfaction levels. On the other hand, price war between airlines also affects airline branding (company reputation). Airlines mostly branding for ticket prices. Service branding and flight safety are not done so that the level of flight safety of an airline is not always known by the public. This is also supported by previous research by Wardhana, et.al, (2017) which stated that there are three determining factors for the passengers of Indonesia in determining the use of airlines, namely fares, services and the image of the airline.

2. NVivo processing results showed that there are 5 (five) main factors that determine the sustainability of the aviation industry, namely: (i). public policy support from regulators; (ii). stakeholder role factors; (iii). the need for regulation regarding tariffs; (iv). the need to realize airline financial supervision that determines the sustainability of the aviation industry; and (v). avoid predatory pricing that has a worst impact on airlines that are not able to impose low fares so that it will cause a monopoly by major airlines in the airline industry.

Airlines are more focused on public policy support from regulators to maintain their business. The aviation business must be regulated or deregulated to strengthen airlines services to passengers. Airlines stated that flexible public policy is needed during the Covid 19 pandemic and when the pandemic ends. Airlines are needed a healthy competition that suits demand and supply. Airlines also highlight regulations related to fares that are considered unfair between types of airline services, causing a predatory pricing between airlines. The airline also highlight the importance of financial supervision of the airline by regulators so that it can be known the level of health of the airlines and find a way out when the financial health of the airline is not good.

3. Based on the results of interviews with regulators found that supervision, regulation, and control of the sustainability of the aviation industry is needed, especially in the quality of human resources, safety, security and service quality (3S + 1C). Improved human resource (HR) competencies are needed to improve flight safety. The regulator also highlighted the need to improve service quality and service competition compared to the price competition currently undertaken by national airlines.

Implications

Managerial Implications

Based on the conclusions above, it can be seen that from the consumer and producer side, the price factor is very dominant to maintain the sustainability of the aviation industry. In this regard, the role of the regulator is needed, especially with regard to the determination of tariffs/prices so as not to cause predatory pricing. Tariff regulations related to the Upper Limit Tariff (TBA) and Lower Limit Tariff (TBB) must be regulated by the Regulator so that the airlines do not kill each other which can lead to the creation of a monopoly. Airlines must be able to improve the quality of excellent service to their passengers so that they can realize customer satisfaction and trust which will be able to maintain sustainability in the Aviation Industry. On the other hand, the passenger safety factor must be a must that is fulfilled by the airline itself and the regulator must be able to carry out supervision and control over passenger safety. Safety branding is usually carried out by full service airlines, but actually low cost airlines also have the same high compliance commitment as full service airlines and must

also be concerned about flight safety. However, airlines such as airlines with low costs such as Citilink, Lion and Indonesia AirAsia have conducted an IOSA safety audit.

Theoretical Implications

Sustainability according to Upham, et.al (2003) as a strategic and transparent integration of social, environmental and economic objectives into the systematic coordination of the main organizational business processes aimed at improving long-term economic performance. Meanwhile, according to Smith & Sharicz (2011), sustainability is defined as the result of organizational activities voluntarily or regulated by law, which shows the organization's ability to maintain the continuity of its business operations (including financial viability) that does not have a negative impact on social or ecological systems. In relation to the concept of sustainability above, the Government carries out various policies in the aviation sector by using the principle of balance between consumer protection related to safety, security, services and healthy business continuity. From this it can be seen that the safety factor is the main factor in the aviation business, given that flight operations can be a dangerous activity because it violates human nature as creatures that live on land.), and related agencies. Aviation operators consist of aircraft manufacturing factories, airlines, airport managers, flight navigation managers, ground service providers (ground handling), aircraft maintenance and repair services (Maintenance, Repair and Overhaul / MRO), flight schools and so on. Related to the above matters, a comprehensive and integrated public policy with stakeholders is needed in the sustainability of the aviation industry.

Policy Recommendations

1. Policies related to the airline business should be dynamic, can be relaxed, changed or updated quickly according to the existing situation and conditions. The implication is that policies related to the aviation business should be regulated in a Ministerial Regulation so that there is no need for a long and complicated administration to relax it. Policies related to flight fares should be improved and updated, as follows: (i). Tariff policies are adjusted to the policies of each airline's business model; (ii). The lower limit tariff (TBB) and upper limit tariff (TBA) policies are updated and adjusted to the prevailing business model; and (iii). Each airline business model has its own TBB and TBA.
2. Aviation regulators in collaboration with airlines can apply the BIGS concept to improve the aviation business aspect so that it can be aligned with the safety aspect. The BIGS concept is Bussines, Innovation, Growth, and Sustainability. BIGS is implemented in stages, namely by improving the business climate through public policies and aviation regulations from regulators, innovating both policy innovations from regulators and managerial innovations from airlines, a good business climate and continuous innovation are expected to lead to good growth from supply and demand sides and in the end will make cash flow smooth so as to make the airline business sustainable.
3. To support the deregulation of tariff policy, it is necessary to deregulate the airline service business model policy, from previously Full Service, Medium Service and No Frills to only Full Service and No Frills. Medium service is actually at the intersection between Full Service and No Frills so that it can be served by the two business models, namely Full Service with a slightly lower service and No Frills which provides more service, deregulated airline minimum service standards policies, collaboration between stakeholders, namely regulators and operators. Public communication is needed so that the implementation of public policies can be well explained and not cause turmoil in society.

4. Related to the Covid-19 pandemic which has a major impact on the aviation sector and is an extraordinary event, the Indonesian government should be greater attention to the sustainability of the aviation business including being attention to the interests of airlines in order to survive during and postpandemic. Airlines are the main operator in aviation, so that when airlines can survive then the other operators such as airports, MRO, Airnav (navigation) and others can also survive from the pandemic.

5. Airline is the main operator in aviation. The sustainability of an airline must be maintained so that it can make a positive contribution to people's lives and the country's economy. Related to this, a policy is needed to determine the health level of an airline and detect if there are problems in the airline's life journey. The health level of the airline can be known by evaluating the financial statements of the airline concerned by using the health indicators of an airline made by the regulator.

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