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THE CORRELATION OF WEATHER AND PASSENGER SERVICE TO ON-TIME PERFORMANCE OF LION AIR

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Abstract: The aviation industry grapples with intricate challenges affecting operational efficiency, notably adverse weather conditions and variations in passenger service. This study probes the correlation between weather and customer service, focusing on enhancing On-Time Performance for Lion Air. Employing quantitative methods, 100 respondents who utilized Lion Air services participated through research questionnaires. Analysis, conducted via SPSS 26 and drawing on secondary data from literature and external sources, underscores the substantial impact of both weather conditions and service quality on commercial airline On-Time Performance. The findings reveal a nuanced interplay, with weather conditions influencing a significant portion of on-time performance. Concurrently, passenger service quality emerges as a pivotal factor, elucidating the intricate relationship between service efficiency and timely flight operations. Approximately three-fourths of on-time performance is attributed to weather dynamics, while half is linked to passenger service quality, underscoring the multifaceted nature of maintaining punctuality in airline operations.

Keywords: *Weather, Passenger Services, On-Time Performance, Lion Air, Flights.*

Introduction

Lion Air is the largest privately owned low-cost carrier airline in Indonesia. The utilization of low-cost carrier aircraft is usually higher due to the management of routes, flight planning, and maximizing turnaround time once the aircraft has landed. With this efficient mechanism, low-cost carrier aircraft utilization can take place up to 12 times a day (Vienselin Lim et al., 2016). The airline was founded on October 19, 1999, and commenced operations on June 30, 2000, by Rusdi Kirana and his family. Lion Air's aircraft began operating on June 30, 2000, using a fleet of Boeing 737-200 on a flight route from Jakarta to Pontianak, marking the airline as the first low-cost carrier in Indonesia (Mardoko, 2017).

However, Lion Air frequently experiences schedule delays. Hayatun and Kurniasari (2022), explain that On-Time Performance (OTP) for the commercial airline Lion Air experienced a decline in percentage from 2017 to 2020, with the lowest percentage recorded at 47%. On April 2023, flight number JT-672 from Makassar (UPG) to Balikpapan (BPN) on Wednesday (19/4) due to issues with the aircraft's air conditioning system. This problem resulted in a delay of approximately 2.5 hours from the initially scheduled departure time of 08:45 WIT, with the actual departure taking place at 11:20 WITA (CNN, 2023). An airline can be considered

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good if it can meet its on-time performance schedule (cirium, 2023). Based on those data, researcher is interested to find the factor cause it. To achieve good performance, effective operational activities are required. The consequences of flights not being on time can include delays, postponements, and cancellations.

On-Time Performance (OTP) is a measure of an airline's ability to provide timely flight services, or in other words, the airline's capability to complete flight activities on schedule (Hayatun & Kurniasari, 2022). On-Time Performance (OTP) stands as a cornerstone of an airline's success, reflecting its ability to uphold the punctuality of flights in line with the predefined schedule. On Time Performance (OTP) is indeed closely related to the designation delayed or late where, timeliness becomes one of the things that can be a clue to the ability of the airline to work. Flights that depart more than 15 minutes can be called late (Nurpiyanti et al., 2019) . An elevated OTP rate is paramount for airlines, serving as a linchpin in maintaining the precision of flight schedules, orchestrating the seamless execution of flight operations, and ensuring the orderly loading and unloading of cargo. The advantages extend beyond operational fluidity, as a high OTP rate furnishes airlines with the capacity to better anticipate delivery schedules and shield against cost overruns attributable to delays or operational disruptions. By consistently adhering to punctual schedules, airlines not only enhance their operational proficiency but also solidify their financial stability (Yimga, 2017). Delay and On Time Performance are related to each other, because if a flight experiences a delay it will affect on time performance. The more flights experience delays, the greater the chance that on time performance will not be achieved (edhie, 2021).

The evaluation of on-time performance relies on documented flight schedule information. This data is commonly employed in various air traffic studies, encompassing operational analysis benchmarking (Gopalakrishnan et al., 2021), analysis of delay patterns (Sternberg et al., 2016), and forecasting traffic delays (Rebollo and Balakrishnan, 2014). Furthermore, a high OTP rate paves the way for cost-efficient airline management. When flights consistently depart and arrive on time, operational processes evolve into a well-oiled machine, mitigating disruptions and complexities that may otherwise arise from delays. This heightened effectiveness and efficiency translate into substantial cost savings for airlines, positioning them more competitively in the aviation industry. The economic benefits resulting from a well-maintained OTP rate contribute to the overall financial health of airlines, allowing them to allocate resources strategically and invest in enhancing the passenger experience (Chow, 2015).

On-Time Performance can be influenced by two main factors: weather conditions and good passenger service. Favorable weather conditions and effective passenger service play a crucial role in maintaining On-Time Performance. Efficient check-in processes, organized boarding, and adequate service facilities can help minimize disruptions and flight schedule delays. By maintaining a correlation between managing unpredictable weather factors and providing the best service to passengers, airlines can achieve an optimal OTP rate to provide a satisfying flight experience for all passengers (skyaviationholdings, 2023).

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Passenger satisfaction plays a pivotal role in the aviation industry, and On-Time Performance (OTP) directly affects this aspect. Passengers have high expectations when it comes to the punctuality of their flights.Airlines that consistently maintain a good OTP rate tend to meet these expectations, fostering a sense of reliability and trust. Customer satisfaction is a critical factor in establishing an airline as the preferred choice for travelers. Satisfied customers are more likely to become loyal customers, frequently choosing the same airline for their future travels. This loyalty positively impacts the airline's reputation and can lead to increased passenger retention and a more robust customer base. Airlines that prioritize and achieve a high OTP rate can leverage this advantage to gain a competitive edge in the industry (oag, 2023).

However, despite the importance of OTP for customer satisfaction and airline success, airlines face various inhibiting factors in their pursuit of a high OTP rate. One such obstacle is unpredictable weather. Severe weather conditions, including tornadoes, hurricanes, storms, heavy fog, or smoke from forest fires, can have a substantial impact on flight operations. Depending on the severity and duration of adverse weather conditions, flights may experience delays or, in more extreme cases, cancellations. These disruptions challenge airlines to balance the expectations of passenger satisfaction with the unpredictability of weather events, emphasizing the need for effective contingency plans, communication strategies, and operational flexibility to mitigate the impact of adverse weather on OTP.

In addition to weather, passenger service is also a key factor in achieving a high OTP rate. Disruptions in passenger check-in processes, slow baggage handling, or issues at the boarding gate can lead to flight delays. The quality of passenger service can be measured through the punctuality of flights. The better the service provided, the greater the likelihood of achieving an optimal OTP rate. Overall, OTP results from the interaction of two primary factors: weather conditions and the quality of passenger service. In the effort to maintain a high OTP rate, airlines need to take proactive steps, such as careful weather monitoring and providing the best service to passengers. Thus, airlines can achieve an optimal OTP rate, offer a satisfying flight experience to all passengers, and maintain a strong reputation in the airline market. Therefore this research aims to provide recommendations to enhance On-Time Performance, offer guidelines on managing weather-related impacts and improving passenger service quality, analyze the most frequent weather disruptions, and examine factors like check-in processes, security oversight, baggage handling, and passenger satisfaction to enhance airline punctuality and service.

II. Literature Review

Weather

In general, weather refers to the atmospheric conditions in a specific region over a short period of time. Scientifically, weather is defined as the state of the atmosphere at a particular moment in a relatively confined area, and this condition tends to change daily. Weather is highly susceptible to fluctuations due to several factors, including air pressure, humidity, temperature, wind direction, and precipitation.

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Weather is the state of the atmosphere at a specific moment that continually changes over time or from time to time (Kartasapoetra, 2010). Meanwhile, according to Nasir and Sugiarto (1999), weather is the immediate state of the atmosphere during a certain period. Weather and climate are the physical conditions of the atmosphere formed through the interaction of various elements or components known as weather and climate elements that interact with each other. These elements include radiation or the duration of sunlight, temperature, humidity, air pressure, wind, clouds, precipitation, and evaporation (Yadi et al., 2012).

Weather plays a significant role in the aviation industry because weather information greatly contributes to the effectiveness, efficiency, and safety of aviation activities. In aviation, factors such as weather conditions, type of aircraft, aircraft conditions, and flight position all influence the sensitivity to weather (Fadholi, 2013). In a study by (Perdana & Putra, 2017), the weather conditions during aircraft operations must be taken into account for the sake of safety, security, and operational efficiency of flights. One crucial weather element that requires careful consideration is wind. This is because wind blows across the runway's surface and affects pilot decisions during landing. Analyzing the components of wind results in headwind, tailwind, and crosswind. Crosswind refers to the wind that blows horizontally perpendicular to the aircraft's body, and a significant change in crosswind speed during the aircraft's landing process can lead to the aircraft veering off the runway and potentially causing a skid.

Temperature and air pressure are crucial weather elements for flight operations. The temperature and air pressure conditions at an airport have a significant impact, especially during takeoff and landing. By calculating the maximum air temperature and air pressure, density altitude values are obtained, which assist flight operators in making decisions during takeoff and landing procedures (Fadholi, 2013).

Passenger Service

According to Zainuddin (1986), a passenger service system is a system that serves as the main link between the entrance to the air terminal and the aircraft (from the entrance to inside the aircraft). (Keke & Candra Susanto, 2019) In the world of aviation, it is known There are three main stages in service, namely:

1. Pre flight service meaning activities handling of passengers and aircraft before departure (in origin airport / origin station).
2. In flight service means activities Service to passengers during in the plane.
3. Post flight service is an activity handling of passengers, cargo, and the plane after flight or arrival (at Destination airport).

Pre-flight, in-flight, and post-flight services are essential to all prospective air travelers as they expect that all services are seamless and will judge whether the services provided by the airlines have met their desire, upon which their satisfaction is to be built (Anggrayni et al., 2020) The passenger service system is the most crucial aspect of the terminal area. Ibnu Syamsi (2003) also defined the procedure for passenger services as a series of established methods for providing the best possible service to ship passengers. In the Indonesian language dictionary, a procedure is described as the course of an event from beginning to end. In the air transportation business categorized as a service business, The role of staff empowerment is very important important. Passengers want resolution as soon as possible, so staff need to understand properly complaints handling procedures

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and also coordinating with internal teams and not 'hanging' or even divert passengers to other staff. If that happens, it will make passengers disappointed because of basic needs passengers who experience service failure is a solution that is quickly handled by competent and capable staff make a decision to provide a solution (Devi Destiani Andilas., 2021.)

According to Horonjeff (1993), a terminal is used to process passengers and baggage for their rendezvous with aircraft and ground transportation. The terminal comprises the following facilities:

1. Ticket service counters and offices used for ticket sales, baggage check-in, flight information, as well as administrative staff and facilities.
2. Terminal service areas, consisting of public and non-public areas such as concessions, passenger and visitor facilities, truck repair areas, food preparation rooms, food storage warehouses, and other goods.
3. Lobbies for passenger circulation and waiting rooms for guests.
4. General circulation areas for passenger and visitor circulation, including areas such as stairs, escalators, elevators, and corridors.
5. Baggage rooms, which are not accessible to the public, for sorting and processing baggage to be loaded onto aircraft (outbound baggage space).
6. Baggage rooms used to process baggage transferred from one aircraft to another, either by the same or different airlines (intraline and interline baggage space).
7. Baggage rooms used to receive baggage from arriving aircraft and deliver it to passengers (inbound baggage space).
8. Airport service and administration areas used for airport management, operations, and maintenance facilities.
9. Federal inspection service facilities, which are areas for processing passengers arriving on international flights and are sometimes integrated as part of the connecting elements.

On Time Performance

On-Time Performance is a record of an airline's punctuality in departure and arrival (Asad Y. Nasar et al., 2008). On-Time Performance is one of the indicators of an airline's success. It can also serve as a measure of an airline's performance in reaching its destination on time. By maintaining schedule accuracy, flight activities, and cargo handling can proceed smoothly, delivery schedules can be predicted, and excess costs can be minimized. If an airline has a high On-Time Performance rate, flight activities can be more effective and efficient, supporting the smooth flow of flight operations and creating a high level of cost efficiency. In addition, customer satisfaction with the airline will increase, making the airline the preferred choice for customers and enhancing the airline's reputation.

In achieving high On-Time Performance, various factors play a role. Weather is a primary factor in achieving On-Time Performance because adverse weather conditions can lead to flight delays and impact subsequent flights. Passenger service is also a crucial determinant of On-Time Performance. Service is an activity carried out by an individual or a group of people based on material factors through specific systems, procedures, and methods to meet the interests of others in accordance with their rights (Moenir et al., 2018). Problematic passenger services often lead to flight schedule delays, such as passenger check-in processes,

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baggage handling, and boarding gate operations. Good passenger service quality can be measured by on-time flight performance, and better passenger service quality leads to higher on-time flight performance. Good passenger service can also minimize the impact of flight schedule delays by providing compensation for delayed flights.

The correlation between weather and on-time performance

The literature review suggests that weather conditions have a significant impact on the on-time performance of flights. Many studies have analyzed the influence of weather conditions on flight operations (Oliviera et.al, 2021). One study developed a predictive model for on-time arrival flights using flight data and weather data (Etani, 2019). Another study found that weather events have a significant impact on airport performance and cause delayed operations if the airport capacity is constrained (Schultz et.al, 2018). Furthermore, a study used machine learning analysis to identify weather influences on flight punctuality and found that weather factors affect flight punctuality and can lead to a high-dimensional scale of consequences stemming from weather (Kaewunruen et. al, 2021). Another study analyzed the delay propagation on departure and arrival flights and found that adverse weather, such as high surface winds, low visibility, and thunderstorms, leads to increasing takeoff or landing separations, and this further reduces the airport's capacity, which is then likely to result in departure or arrival delays (Zheng et. al,2021). Overall, the literature review suggests that weather conditions have a significant impact on the on-time performance of flights. Adverse weather conditions can lead to flight delays and cancellations, which can affect customer satisfaction and airline operations.

The correlation between passenger service quality and on-time performance

The literature review suggests that there is a correlation between passenger service quality and on-time performance. One study found that service quality has become an important area for competition among Chinese carriers, and there is a relationship between customer satisfaction and on-time performance (Chow, 2015). Another study found that the service quality of Lion Air Group can influence passenger loyalty, which in turn can significantly influence repurchase (Octaviani, 2023). Furthermore, a study analyzed the correlation between perception of quality service and customer loyalty to users of Lion Air flight services and found that service quality is the most important factor in the airline business (Fildzahni & Diahsari, 2016). Another study analyzed the factors affecting Lion Air airline loyalty behavior in Indonesia and found that service quality is one of the factors that affect customer loyalty (Utomo & Salim, 2021). Overall, the literature review suggests that there is a correlation between passenger service quality and on-time performance. Service quality is an important factor in the airline industry, and it can influence customer satisfaction, loyalty, and repurchase intention.

Research method

This study employs a quantitative research design with a correlational approach to investigate the relationship between weather conditions, passenger service quality, and the on-time performance of Lion Air. Data will be collected through a multi-faceted approach, including the distribution of questionnaires to passengers. To ensure a representative sample, stratified random sampling will be utilized, stratifying the sample by route and time-period, with the sample size determined using appropriate statistical techniques to ensure a sufficient level of

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confidence, in this research 100 respondents are used to be samples. Data preprocessing, including data cleaning and addressing missing values and outliers, will be performed prior to conducting descriptive and correlational analyses. IBM SPSS Statistics 26 will be employed as the primary data analysis tool to calculate the Pearson correlation coefficient, allowing for the measurement of the strength and direction of the relationship between weather conditions, passenger service quality, and on-time performance. This comprehensive approach will enable a thorough examination of the factors influencing Lion Air's on-time performance and their potential correlations with weather conditions and passenger service quality.

Here is a measurement table for the variables of weather, on-time performance, and passenger service quality:

Variable	**Measurement**
Weather	Temperature, precipitation, wind speed, visibility, thunderstorms, snow, ice, fog, etc.
On-time performance	Departure and arrival times, flight delays, cancellations, gate arrival times, gate departure times, etc.
Passenger service quality	Customer satisfaction, loyalty, repurchase intention, service quality perception, etc.

The measurement of weather can include various factors such as temperature, precipitation, wind speed, visibility, thunderstorms, snow, ice, and fog, among others. On-time performance can be measured by departure and arrival times, flight delays, cancellations, gate arrival times, and gate departure times, among others. Passenger service quality can be measured by customer satisfaction, loyalty, repurchase intention, and service quality perception, among others.The literature review suggests that there is a correlation between these variables. Adverse weather conditions can lead to flight delays and cancellations, which can affect customer satisfaction and airline operations. Service quality is an important factor in the airline industry, and it can influence customer satisfaction, loyalty, and repurchase intention.

Results and discussion

Reliability analysis is a statistical technique used to assess the consistency, stability, and dependability of measurements or data. It is commonly employed in various fields, such as psychology, engineering, and social sciences, to evaluate the reliability of tests, instruments, or systems. The primary goal of reliability analysis is to determine the extent to which measurements or data are free from random error, meaning they provide consistent and reproducible results over time and across different conditions.

Variable	Cronbach's Alpha	Composite Reliability	AVE
Weather	0.625	0,596	0,404
Passenger Service	0.578	0,924	0,076
On-Time Performance	0.702	0,566	0,434

Table 1. Result of Validity and Reliability Test

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Based on the results of the reliability test for the weather variable as shown in Table 1, it indicates that the Cronbach's alpha value is 0.625 or > 0.5, which means that all the item variables is already reliable. According to the outcomes of the reliability assessment for the service variable, as presented in Table 2, it is evident that the Cronbach's alpha value, standing at 0.578, exceeds the threshold of 0.5, signifying that all the items within this variable are indeed reliable. Based on the results of the reliability test for the on-time performance variable as shown in Table 3, it indicates that the Cronbach's alpha value is 0.702 or > 0.5, which means that all the items variable is already reliable.

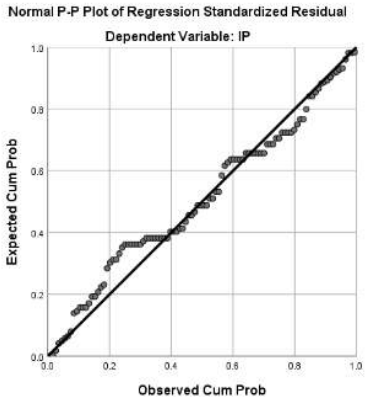

Figure 1. Normality test

From Figure 1, it can be concluded that the data points are fairly evenly distributed around the diagonal line. This result suggests that the data distribution tends to follow a normal distribution pattern.

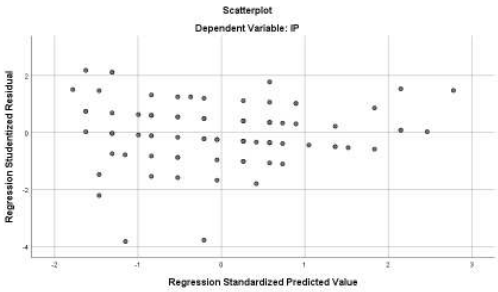

Figure 2. Heteroskedasticity test

From Figure 2 which has been observed, it is apparent that the data points are primarily scattered along the Y-axis. This result suggests that the heteroskedasticity test does not indicate any issues regarding heteroskedastic variation in the data. Consequently, it can be concluded that the heteroskedasticity assumption in the model is not met.

Hypothesis	Path/Relationships	β	T-VALUE	P-VALUE	Result
H1	Variable W → Variable OTP	0,567	1.647	0,000	Accepted
H2	Variable PS → Variable OTP	0,301	1.568	0,001	Accepted

Table 2. Path Coefficients and T-Values

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In Table 2, there is a regression model, which is Y = 96.900 + 3.192 X1 + 1.077 X2 + e. The weather of Lion Air has been proven to have a significant impact on on-time performance (with a Sig P value < 0.05, specifically 0.000). Furthermore, it is confirmed that the service quality significantly affects to on-time performance because the Sig P value is less than 0.05, specifically 0.001.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1150.297	2	75.148	21.491	.000[b]
	Residual	4989.164	99	50.396		
	Total	7139.461	101			
a. Dependent Variable: IP						
b. Predictors: (Constant), IS, IW						

Table 3. F test

From the results in Table 3, it is known that a value of 21.491 is obtained for the calculated F-statistic with a probability of 0.000. This result leads to the conclusion that at a significance level of α=0.05, it can be inferred that both weather sand service quality significantly influences to on-time performance simultaneously.

Variable	R2	Result
Weather	0,762	High
Passenger Service	0,501	Medium

Tabel 4. R Square

The results of Table 4 show the Weather R Square is 0.762 and the Passenger Service R Square is 0.501. This means that 76.2% of on-time performance is explained by weather and 50.1% of on-time performance is explained by the quality of passenger service. With these results, there are still variances in other variables.

No.	Variabel	Cronbach's Alpha	Result
1.	Kinerja (Y)	0,748	Reliable
2.	Scheduling (X)	0,729	Reliable
3.	Maintenance (Z)	0,768	Reliable

Table 5. Other Factors (Pradnyandari, 2019)

The remainder shows that on Table 5, on-time performance is not only influenced by weather and service quality but can also be associated with the involvement of other independent variables and factors.

Based on the research results, it is known that the findings can address two established research hypotheses. Firstly, the influence of weather on on-time performance is positive and significant. It is also relevant to some previous research, on-Time Performance (OTP) reflects the punctuality of an airline, where airlines achieving punctuality demonstrate a 100% performance in terms of timeliness. Meanwhile, airlines with suboptimal OTP performance (falling short of 100%) experience this due to factors such as weather-related issues and various other

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factors, including technical problems (WAYAN ITA MAHENDRAYANI, 2016). (Hayatun & Kurniasari, 2021) explained that the factors contributing to the failure to achieve On-Time Performance in commercial airlines (A case study on Lion Air's Pontianak - Surabaya route at Supadio International Airport in Pontianak) include weather-related factors such as haze and heavy rain, technical factors arising from aircraft malfunctions, and operational factors caused by air traffic congestion during takeoff and landing. Weather conditions have a substantial influence on air traffic operations. These external elements can introduce operational limitations and result in disparities between demand and capacity, on-time performance, increased costs for airlines, and passenger inconveniences (Nair et al., 2015). Forecasting the influence of weather on-time performances and arrival delays is a more complex task when contrasted with departures. This complexity arises due to potential nonlinear, cascading consequences, and increased levels of unpredictability (Lui et.al., 2022).

Second, the influence of service quality on on-time performance is positive and significant. It also relevant to some previous research, the findings indicated that customer satisfaction with Lion Air Airlines was rated as "good," with a percentage of 73.2% (Sadiqin & Saraswati, 2018). One of the actions that can be taken is to maintain punctuality in flight schedules, provide courteous and polite customer service, and offer appropriate compensation in case of unexpected occurrences, because those two things are correlated each other (Nathadewi & Sukawati, 2019).

Conclusion

The research findings and the ensuing discussions lead to a definitive conclusion, both weather conditions and service quality exert a substantial influence on on-time performance within the realm of commercial airline operations. Various weather factors, such as rain, haze, and other meteorological conditions, have the potential to introduce operational complexities, often resulting in flight schedule delays. Moreover, the maintenance of a consistently high level of service quality, encompassing elements like courteous customer service and punctuality, has a demonstrably positive impact on ensuring on-time performance in the airline industry.

Implications

These findings have several implications for both the airline industry and future research. Airlines should consider investing in strategies and technologies to mitigate the impact of adverse weather conditions on flight schedules. Additionally, focusing on improving service quality can lead to enhanced on-time performance and increased customer satisfaction. For future research, a more comprehensive examination of the interplay between weather, service quality, and other factors affecting on-time performance is warranted to better understand the dynamics of airline operations.

Research Limitations

While the research provides valuable insights, it is important to acknowledge its limitations. First, the study primarily focused on the impact of weather and service quality, potentially overlooking other relevant variables that could affect on-time performance. Additionally, the research was conducted within a specific airline context, and the findings may not be universally applicable to all airlines. Moreover, the study used quantitative data, and a more qualitative

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approach, such as interviews or surveys with airline staff and passengers, could offer deeper insights. Finally, the study considered a specific geographical region, and the results may not fully represent global airline operations.

References:

Chow, C. K. W. (2015). On-time performance, passenger expectations and satisfaction in the Chinese airline industry. Journal of Air Transport Management, 47, 39-47.

Anggrayni, I., Amalia, A., Setiawan, E. B., & Ozali, I. (n.d.). *BUILDING PASSENGER TRUST THROUGH IMPROVEMENTS OF SERVICE QUALITY (PRE-FLIGHT, IN-FLIGHT, AND POST-FLIGHT) AND PASSENGER SATISFACTION (A CASE STUDY OF CITILINK INDONESIA)*. www.citilink.co.id

Fadholi, A. (2013). Study Pengaruh Suhu Dan Tekanan Udara Terhadap Operasi Penerbangan Di Bandara H.a.S. Hananjoeddin Buluh Tumbang Belitung Periode 1980-2010. *Jurnal Penelitian Fisika Dan Aplikasinya (JPFA)*, *3*(1), 1. https://doi.org/10.26740/jpfa.v3n1.p1-10

Hayatun, W., & Kurniasari, Z. (2021). on Time Performance Maskapai Penerbangan Komersil (Studi Kasus Pada Lion Air Rute Pontianak – Surabaya Di Bandar Udara Internasional Supadio Pontianak). *Jurnal Ground Handling Dirgantara*, *4*(2), 397–400.

Keke, Y., & Candra Susanto, P. (2019). KINERJA GROUND HANDLING MENDUKUNG OPERASIONAL BANDAR UDARA. In *AVIASI Jurnal Ilmiah Kedirgantaraan* (Vol. 16).

Nair, M. N. N., Appannan, J. S., Kan, P. M., ..., Ghosh, B., Vardarlier, P., Esra, E., Leonidou, L. C., Leonidou, C. N., Palihawadana, D., Hultman, M., Adhimusandi, D., Sudirman, H. A., Militina, T., Steven, S., Pratiwi, R., Sanidewi, H., Paramita, E. L., Dey, S. K., … Fonseca, J. C. G. (2015). the Impact of Green Marketing Practices on Consumer Buying Decision. *ISCTE Repositório - Master Dissertation in Business Administration Supervisor:*, *0*(1), 0.

Nathadewi, K. S., & Sukawati, T. G. R. (2019). Peran Kepuasan Dalam Memediasi Pengaruh Kualitas Pelayanan Terhadap Niat Beli Ulang Konsumen Lion Air. *E-Jurnal Manajemen Universitas Udayana*, *8*(11), 6658. https://doi.org/10.24843/ejmunud.2019.v08.i11.p14

Nurpiyanti, R., Rizqiana, K., Apriyadi, D., & Iqbal Firdaus, M. (n.d.). *Impact of Service quality, On time performance and Customer satisfaction with Lion Air's image*.

Perdana, Y. H., & Putra, I. D. G. A. (2017). Kejadian Crosswind di Landasan Pacu Bandara Supadio Pontianak Tahun 2016. *Seminar Nasional Iptek Penerbangan Dan Antariksa XXI-2017*, *February 2017*, 0–5.

Sadiqin, M. H., & Saraswati, T. G. (2018). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan Pada Maskapai Lion Air (Studi Pada Mahasiswa Administrasi Bisnis Universitas Telkom) Impact Of Service Quality On Costumer Satisfaction In Lion Air (Study Of Business

ISSN: 2622-5778 (online)
Advances in Transportation and Logistics Research
http://proceedings.itltrisakti.ac.id/index.php/altr

Administration Students Telko. *E-Proceeding of Management*, *5*(3), 3919–3929.

Edhie Budi Setiawan, N.D (2021) ON TIME PERFORMANCE IN THE AIRLINE INDUSTRY AS THE IMPACT OF FLIGHT FREQUENCY AND FLIGHT DELAY

Devi Destiani Andilas. N.D. Pengaruh Service Recovery terhadap Customer Satisfaction Penumpang Maskapai Penerbangan Internasional di Indonesia

WAYAN ITA MAHENDRAYANI, N. (2016). Pengaruh Kualitas Layanan Terhadap Kepuasan Pelanggandengan Kepercayaan Sebagai Variabel Intervening (Studi Padapelanggan Lion Air Dibandara Juanda Surabaya). *Jurnal Ilmu Manajemen (JIM)*, *4*(3), 1–7.

Yadi, S., Karismuna, L., & Sabaruddin, L. (2012). Pengaruh Pemangkasan dan Pemberian Pupuk Organik terhadap Produksi Tanaman Mentimun (Cucumis sativa L.). *Berkala Penelitian Agronomi*, *1*(2), 107–114.

Cirium. (2023). On-Time Performance. Retrieved from https://www.cirium.com/resources/on-time-performance/

Sky Aviation Holdings. (2023). How Weather Affects Aircraft Maintenance and Performance. Retrieved from https://skyaviationholdings.com/how-weather-affects-aircraft-maintenance-and-performance/

OAG. (2023). Defining Late: On-Time Performance in the Aviation Industry. Retrieved from https://www.oag.com/blog/defining-late-on-time-performance-in-the-aviation-industry