BIoHS - Journal
Britain International of Humanities and Social Sciences Journal
| Publish : February - June - October |
E-ISSN: 2685-3868
P-ISSN: 2685-1989
http://biarjournal.com/index.php/biohs

The Impact of Complete Aviation Services on Airport Service Performance at Class III Numfor Airport

Yulianto[1], Muhamad Sawir[2], Soesilo Wibowo[3]
[1,2,3]Faculty of Social Science and Political Science, Universitas Terbuka, Indonesia
Email: yulianto240988@gmail.com, muhammadsawir76@yahoo.com, soesilow_bgr@yahoo.com

Abstract: *This study aims to analyze the development and use of Numfor Airport facilities, their impact on the performance of Numfor Airport, and the prioritized development and use of facilities at Numfor Airport. The research used mixed methods with the primary reliance on qualitative and quantitative data. While the qualitative data were obtained from interviews, the quantitative data were obtained from distributed questionnaires. The research participants and samples in this study amounted to 30 people, who were Numfor Airport employees, airline employees, and the public passengers. Quantitative data were processed using simple linear regression analysis. The results of the study show that 1) The development and utilization of facilities at Numfor Airport was far from optimal. 2) The development and utilization of facilities had a positive and significant effect on the performance of Numfor Airport. 3) It is necessary to prioritize the development and use of facilities at Numfor Airport for standardization of basic service facilities, procurement of the unavailable facilities, utilization of communication facilities, as well as procurement of special costs for transportation, postal and giro.*
Keywords: *Airport Performance; Facility Development; Facility Utilization*

I. Introduction

Transportation has seen an enormously rapid development in the current years to keep up with the community's need for fast, safe and comfortable transportation (Akyuwen, 2011). Developments in transportation and technology have made it possible for more tourists to travel to distant destinations, both domestically and abroad via air transportation (Hannam *et al.*, 2006). Thus, it is pivotal to understand the state of aviation industry and air transportation as they can contribute to the influx of tourists.

Airports play a key role in air transportation services because they are the center of activities for airlines (Zulaichah, 2014). Airport facilities, processes and airport atmosphere are integral components of air travel and are the first and last point of contact for passengers (Antwi *et al.*, 2020). Therefore, it is crucial that airports carry out their functions in an integrated manner to allow their users, such as passengers, airline staff, service provider company staff, and other visitors to feel satisfied in using airport facilities (Ardiansyah & Ridwanudin, 2019).

Located in Biak Numfor Regency, Papua Provice, Numfor Airport is one of the airports in a developing area in Eastern Indonesia. Numfor Airport has been playing a strategic role in supporting the attempts to increase the role of air transport in relation to regional development in particular and national development at large. The establishment and operation of air transport in Numfor is a new breakthrough that is well received by the public because it can shorten travel time and is more practical in serving inter-island trips.

Based on internal flight data and Government Agencies Performance Accountability Reports (LAKIP), currently there had been a decline in the performance of Numfor Airport. This can be seen from the significant decline in the volume of aircraft and passengers arriving and departing from Numfor Airport. In 2017-2021, Numfor Airport was unable to achieve its service performance targets due to the significant decrease in the number of passengers. This result was inconsistent with the absorption rate of the UPBU Office budget, which tends to increase every year. The high rate of budget absorption should have enabled Numfor Airport to optimize its service performance.

The declining service performance at Numfor Airport has forced the airport managers to constantly improve the airport service performance and pay attention to factors that can affect service performance. One of the considerable factors to affect the performance of airport services is airport facilities. Airport physical environment, such as facilities, is known to reflect the quality of service at an airport (Hong *et al.*, 2020).

Wiredja et al. (2019) found that non-processing factors such as airport facilities, ATMs or money changers, food and beverage shops, shopping facilities, and retail arrival areas have a significant effect on the overall airport service performance. The development and fulfillment of airport facilities is also useful for optimizing airport performance upon the soaring volume of air traffic (Halpern & Graham, 2013).

Facilities have been developed every year as a way to achieve effective, efficient and optimal Numfor Airport services. However, Numfor Airport often receives complaints from flight service users. An initial survey in this research on 10 passengers at Numfor Airport revealed several complaints related to airport service performance. The initial survey resulted in six important points that the passengers mostly complained about, namely the availability of facilities, standard of facilities, timeliness of service, delivery of information, handling of complaints, and availability of services.

Currently, in Indonesia, there are only few researches to examines the development and utilization of airport facilities and their impact on service performance. Previous researchers put more emphasis on the level of airport service quality, which was analyzed using the SERVQUAL and Important Performance Analysis (IPA) methods, as done by Mansur *et al.* (2020), and Nugroho (2021). In addition, a few studies examined the performance of airport services from various stakeholder's perspective, such as passengers, airlines, and airport operators (Hong *et al.*, 2020; Hong & Jun, 2006). Airlines, like passengers, also use airport facilities (Suárez-Alemán & Jiménez, 2016).

Based on the results of the initial survey and the existing research gaps, this study aims to analyze the development and utilization of facilities at Numfor Airport and examine their impact on the service performance of Numfor Airport. This research also addresses which facilities need to be prioritized for the development and utilization of Numfor Airport. The results of this study are expected to provide important implications for Numfor Airport managers in developing and utilizing facilities for the improvement of airport performance.

II. Review of Literature

2.1 Airport Performance

Measuring airport performance is crucial for business and operations management, regulatory agencies, governments, and other stakeholders, such as passengers and airlines (Humphreys & Francis, 2002). Measurement and evaluation of airport performance are

needed to identify process efficiency and use the information obtained to assess the performance quality and decide on appropriate actions (Yu, 2010). Airport management usually measures airport service quality objectively to identify service gaps that pose threats to overall airport performance (Humphreys & Francis, 2002).

2.2 Airport Facilities

Airport facilities refer to various facilities inside the airport terminal (Bogicevic *et al.*, 2013). Airport facilities have proven to have a positive effect on passenger satisfaction (Prentice & Kadan, 2019). Kim *et al.* (2016) articulated that airport accessibility and facilities can influence customer behavioral intentions to reuse and recommend airports. To meet the increasing demand for air transportation, it is necessary for the airport to develop adequate service facilities (Pandey, 2016).

In connection with the findings of previous researchers and performance problems at Numfor Airport, it is thus deemed necessary to conduct research on how the development and utilization of facilities at Numfor Airport is implemented. In addition, it is also essential to analyze which facilities should be prioritized for further development and utilization at Numfor Airport. This study develops the framework and research model shown in Figures 1 and 2.

2.3 Hypothesis Development

In an increasingly competitive environment, airports are urged to provide quality service (Wyman, 2012). Measuring and assessing airport performance is considerably crucial as a way to help airports enhance the efficiency of its service and strategic plan for the airport sustainability (Wang & Song, 2020). Research by Wiredja *et al.* (2019) proved that the airport non-processing domain had a significant impact on the overall airport service performance. In this line, other researchers also found that the quality of the physical environment (servicescape) (Hong *et al.*, 2020), construction and development of airport infrastructure (Laksono *et al.*, 2018) had a positive effect on airport performance. Referring to the findings of the previous researchers, this study formulated the following hypothesis:
H: Development and utilization of facilities have a positive and significant impact on the performance of Numfor Airport

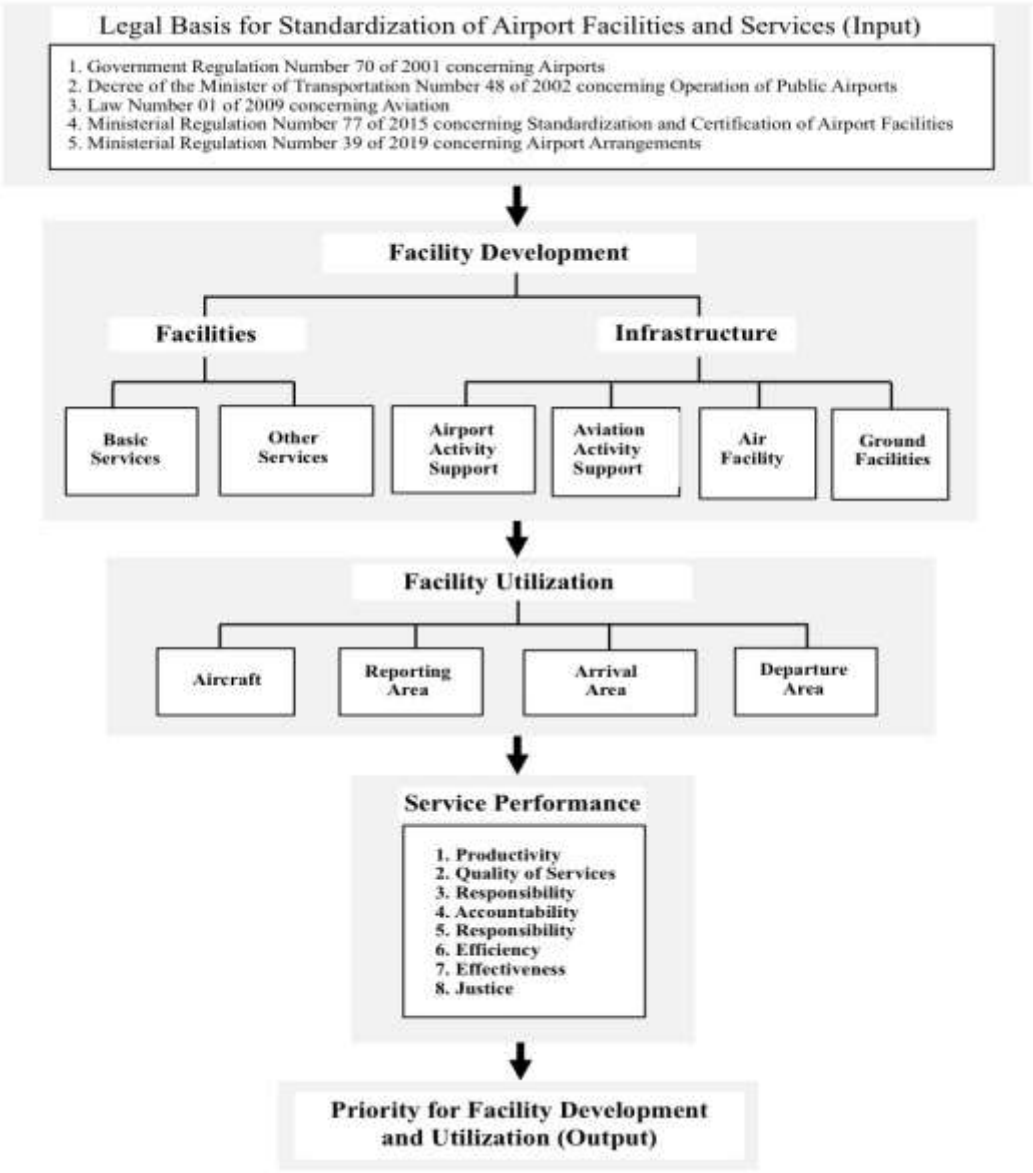

Figure 2. *Figure on Research Theoretical Framework*

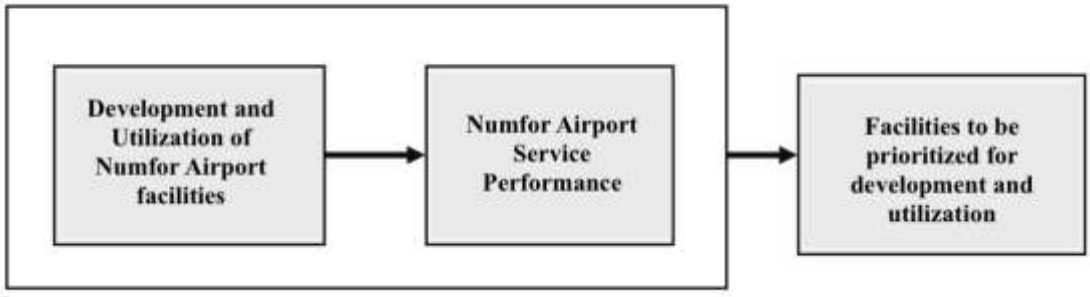

Figure 2. *Research Model*

III. Research Method

This study used a mixed research method that combines qualitative and quantitative research methodin an integrated manner. While the qualitative method with a case study approach was used to determine the existing development and utilization of facilities and service performance at Numfor Airport, the quantitative method was used to determine the effect of the development and utilization of facilities on service performance, which was supported by statistical analysis.

Qualitative data were obtained through in-depth interviews with 30 research participants consisting of the Head and employees of Numfor Airport, airline representative staff, and passengers. Quantitative data were obtained from questionnaires distributed to 30 respondents from airline staff and passengers. The qualitative data were analyzed through the following steps: data collection, data reduction, data display, and drawing conclusions. Meanwhile, the quantitative data were analyzed using simple regression analysis. Prior to simple regression analysis, the data were first tested to ensure their normality and linearity.

IV. Discussion

To obtain research data, researchers conducted in-depth interviews with the management and service users of Numfor Airport. The composition of the informants in this study is depicted in Figure 3. 57% of the informants were Numfor Airport managers, 40% of the informants were service users of Numfor Airport, and 3% of the interviewees were Susi Air airline employees, who used the services of Numfor Airport. Using this mixed method, this research is expected to produce a more in-depth picture of the facilities and performance of Numfor Airport from various perspectives.

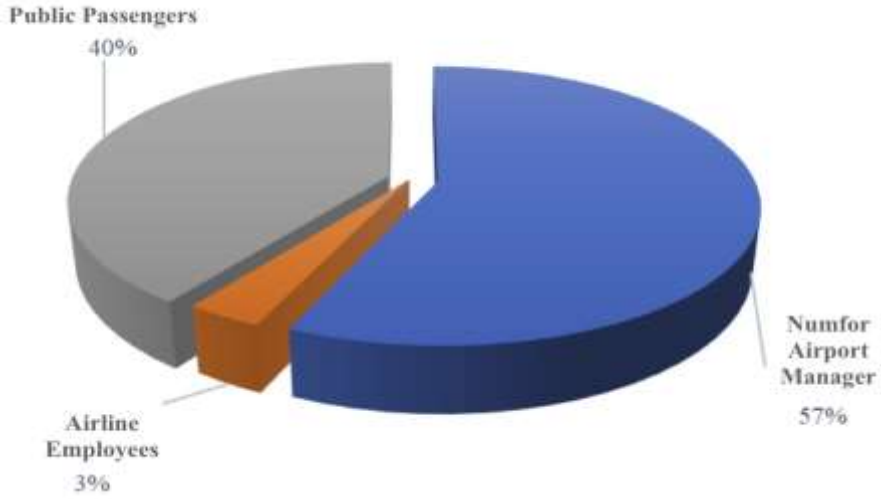

Figure 3*. Composition of Research Sources*

4.1 Facility Development

The development of Numfor airport facilities is analyzed from facilities related to basic services, supporting flight activities, supporting airport activities, other services, air facilities and ground facilities. By analysing the interview, it is clear that there has been an inadequate development of facilities at Numfor Airport, which is particularly observable from the unavailability of numerous facilities at Numfor Airport. This fact is worsened by the fact that many of the available facilities are less suitable with or do not meet the required standards.

Referring to Law no. 1 of 2009 concerning aviation, article 219 paragraph 1 states that every airport business entity or airport management unit is required to provide airport facilities that meet flight safety and security requirements, as well as airport services in accordance with established service standards. In the same vein, the Regulation of the Minister of Transportation No. 77 of 2015 concerning standardization and certification of airport facilities stipulates that to support the safety of flight operations and airport services, each airport facility must meet the required standards, technical standards, and airworthiness standards.

Based on these laws and ministerial regulations, it is clear that all airports, including Numfor Airport, are required to provide facilities that meet the standards. The numerous facilities at Numfor Airport that did not meet standards indicates the inadequate development of facilities at Numfor Airport, although the facilities are very important because they are directly related to aircraft flight activities, such as landing and take-off facilities as well as several parts that have not been standardized.

In addition to facilities that did not meet standards, many facilities were unavailable at Numfor Airport. The unavailable supporting facilities for aviation activities were aircraft hangars, aircraft workshops, warehousing, aircraft catering services, aircraft maintenance and repair services, and DPPU or fuel services. Supporting facilities for airport activities that were unavailable were lodging/hotels, shops, restaurants, bars, and automatic check-in system facilities. Land facilities that were yet to be made available at Numfor Airport were the air traffic control tower and SAR building.

In addition to this, Numfor Airport only had two flight navigation facilities, namely the Non-Directional Beacon (NDB) and the Doppler VHF Omni Range (DVOR). Ten other flight navigation facilities were yet to be made available. Likewise with visual aid landing facilities, which only had three out of 18 facilities. Other service facilities that were still unavailable were banking and money exchange facilities, facilities for first class lounges, business class lounges, and VIP rooms, sales of fuel and motor vehicle lubricants, goods transportation services, telecommunications services, playgrounds and recreation, transport services tourism, travel agents, land transportation services, advertising services, hairdressers and beauty salons, agribusiness, insurance, vending machines, waste management services, health services, and industrial estate provision services. According to Ashford et al. (2013), one of the criteria for assessing airport efficiency is the availability of operational facilities.

4.2 Facility Utilization

Airports are an important part of the air transportation system. To support safe and comfortable air transportation operations, the airport has been equipped with various facilities. It is necessary to utilize these well-established and well-provided facilities as optimally as possible to support the smooth functioning of airport operations. This study analyzed the utilization of facilities at Numfor Airport based on aircraft indicators, reporting area, departure area, and arrival area.

Since many facilities were yet to be made available at the airport, and many facilities were still not up to standard, the utilization of facilities at Numfor Airport was also far from optimal. In terms of the number of aircraft indicator, there was only one airline that routinely serves passenger flights at Numfor Airport every week, namely Susi Air. Passenger flights in this airport constitutes two routes, namely Manokwari-Numfor for a round trip and Biak-Numfor also for a round trip.

The passengers and employees of Numfor Airport consider that passenger flights have not been able to meet the needs of the community. This opinion was attributed to the fact that flight schedules often change and information related to flight services is often delivered inaccurately. In addition, in terms of passenger flights, the utilization of the facility is far from optimal because the number of flights tends to decrease every year. In previous years, passenger flights could fly eight times a week, but now the flight schedule was reduced to only five times a week. Irregular flight schedules, frequent delays and sudden flight cancellations made people prefer other transportation options, such as ships.

Similar to passenger flights, the utilization of Numfor Airport facilities for baggage, cargo and postal flights was also less optimal. Baggage, cargo, postal and giro flights were still on the same plane as passenger flights. This condition resulted in less or limited capacity for baggage, cargo, mail and giro, while the maximum aircraft load is 1,400 kg. In addition, the delivery of baggage, cargo, postal and giro was still often constrained by the serving airlines because the schedule changed frequently and was far from sticking to daily regular schedule.

Likewise, the utilization of facilities in the reporting area was also less optimal. The infrastructure of Numfor Airport Terminal was far from complete yet since it was still in the construction stage. Therefore, even though the check-in counter room had been functioning, several facilities had not been made up to the standard requirements, or even still non existent. For example, parking areas were not up to standard because there were no barriers and markings or signs between vehicles, toilets in rest areas did not meet the standard requirement, and drop-off areas also did not meet standards because there were no officers and no signs for directions. This is contradictory to the importance of sign and symbols as the determining factor in the quality of air services as revealed by the research findings of Ardiansyah and Ridwanudin (2019).

In the departure area, a decent waiting room for passengers had been made available. However, the utilization of the facilities in the departure area was still far from optimal because many facilities were still far from complete and were still inadequate. These facilities include smoking areas, toilets, prayer rooms, nursery rooms and VVIP rooms. Shopping facilities were only available inside the room, but there were no service users who rented them, and thus there were no shops to provide service at Numfor Airport. There were also no children's play ground in the departure area. To make it worse, even though there were janitors at service, the janitors did not seem to perform their job optimally because scattered trash were seen everywhere.

The arrival area of Numfor Airport had provided users with ground handling service facilities and trolley for goods transportation. However, the utilization of facilities in the arrival area was also less optimal because there were no conveyor facilities, there was no special room for complaints about lost and found passenger luggage, and there were no tourist and travel agent service facilities, banking and financial facilities, health facilities, and complaint facilities. For complaints of lost goods, Numfor Airport only provided a desk without any special officer on duty. Besides, the rest area and vehicle parking facilities in the arrival area were also not up to standard.

Thus, from the observation, it was obvious that the utilization of Numfor Airport facilities was far from optimal. The unfinished construction of facilities, such as smoking areas, prayer rooms, nursery rooms, parking areas, VIP waiting rooms, and missing goods procurement rooms has resulted in the fact that these facilities could not function optimally in supporting smooth airport operations and services. The less optimal condition also applied to

the utilization of the available facilities which had been constructed and made available. For example, some venues for shops or restaurants were not in operation and remained vacant.

In line with the findings of Park and Ahn (2003), inadequate terminal capacity and inefficient utilization of facilities such as check-in counters are the main factors causing congestion and delays at airport passenger terminals. Based on the research results, the utilization of Numfor Airport facilities is also a factor in hampering services, such as flight schedules that often change, delays in submitting information on cancellations or changes to flight schedules, and the process of complaining about lost goods.

4.3 Effect of Development and Utilization of Facilities on Performance

In order to determine the effect of the development and utilization of facilities on service performance at Numfor Airport from a statistical perspective, the researchers conducted a simple regression analysis. Previously, the data was first tested for validity and reliability.

Table 1 four invalid items because the r-statistic value was < r-table value (0.296). The four invalid airport performance variable items were K4, K5, K13, and K17, which must be excluded from the research model. Other items from airport performance variables were valid. Then, the results of the validity test of the development and utilization of facilities variables are shown in Table 2. Based on this table, it can be seen that only one item was invalid, namely F4. The remaining items were declared valid.

Table 1. Validity Test Results for Airport Performance Variables

	Items	R-Statistics	Description
	Productivity		
K1	Service time	0,541	Valid
K2	Number of service officers	0,778	Valid
K3	Equipment used	0,840	Valid
	Service quality		
K4	Appearance of the facilities used	0,091	Invalid
K5	Facility conditions	0,071	Invalid
K6	Appearance of personnel on duty	0,622	Valid
K7	Ability to provide services	0,675	Valid
K8	Communication ability	0,691	Valid
K9	Personnel Readiness	0,711	Valid
K10	Mastery of skills	0,711	Valid
K11	Knowledge of personnel	0,700	Valid
K12	Attitude of personnel	0,640	Valid
K13	Provided security	0,058	Invalid
	Responsiveness		
K14	Service speed	0,847	Valid
K15	Service accuracy	0,737	Valid
K16	Service austerity	0,602	Valid
K17	Response to complaints	0,195	Invalid
	Accountability		
K18	Accuracy of service information	0,638	Valid
K19	Completeness of service information	0,611	Valid

Table 2. Validity of the Variable of Development and Utilization of Facilities

Items		R-Statistics	Description
Aircraft			
F1	Passenger capacity	0,464	Valid
F2	Airline	0,480	Valid
F3	Flight route	0,641	Valid
F4	Aviation facility	0,092	Invalid
F5	Cargo facilities	0,658	Valid
Reporting Area			
F6	Check-in rooms	0,703	Valid
F7	Check-in facilities	0,488	Valid
F8	Parking lots	0,736	Valid
F9	Trolley	0,413	Valid
F10	Toilets	0,608	Valid
F11	Drop off area	0,833	Valid
Departure Area			
F12	Waiting area	0,694	Valid
F13	Toilet Facilities	0,660	Valid
F14	Mosque	0,637	Valid
F15	Restaurants/shops	0,604	Valid
F16	Smoking Area	0,579	Valid
F17	Nursery room	0,568	Valid
F18	Children playground	0,635	Valid
Arrival Area			
F19	Ground Handling	0,840	Valid
F20	Conveyor	0,722	Valid

Table 3. Reliability Test Results

No	Variables	Cronbach's Alpha
1	Airport Performance	0,921
2	Development and utilization of facilities	0,912

After all the items in the research model were found to be valid, a reliability test was carried out. The reliability test results in Table 3 indicate that both variables have a Cronbach's Alpha value > 0.7, and thus, both variables were declared reliable.

The normality test was conducted using the Kolmogorov-Smirnov test. The results of the normality test in Table 4 demonstrates that the asymp. sig was of 0.200 > 0.05. Therefore, it can be concluded that the data were normally distributed.

Table 4. Normality Test Results

		Unstandardized Residual
N		30
Normal Parameters	Mean	0,0000000
	Std, Deviation	7,23159879
Most Extreme Differences	Absolute	0,103
	Positive	0,103
	Negative	-0,102
Test Statistic		0,103
Asymp. Sig. (2-tailed)		0,200

In addition to having the normality test, the data also needs testing to ensure its linearity using the Durbin Watson test. The results of the Durbin Watson test are shown in Table 5. It was clear that out of a total of 30 data, there was one independent variable with a significance of 5%. The Durbin-Watson table values obtained dL = 1.3630 and dU = 1.4957. The data were said to have ano autocorrelation if the value of d > dU. The Durbin-Watson value was 2.216, so the value of D = 4-2.216 = 1.784, and the value of D was 1.784 > dU 1.4957. Thus, it can be concluded that the data had no autocorrelation.

Table 5. Durbin-Watson Test Results

Model	R	R Square	Adjusted R Square	Std, Error of the Estimate	Durbin-Watson
1	0,683[a]	0,467	0,447	7,360	2,216

After the data were declared to have validity, reliability, normality, and linearity based on the previous tests, a simple regression test was performed. The results of the simple regression test (Table 6) demonstrates that the effect of the development and utilization of facilities on airport performance had a coefficient of 0.697, which indicates a positive correlation. The significance value was 0.000 <0.05, which means that the effect was significant. Development and utilization of facilities had a positive and significant impact on the performance of Numfor Airport.

Table 6. Simple Regression Analysis Results

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	9,108	6,656		1,368	0,182
the development and utilization of facilities	0,697	0,141	0,683	4,949	0,000

Based on the results of hypothesis testing with simple linear regression analysis, it is evident that the development and utilization of facilities have a positive and significant effect on the performance of Numfor Airport. The better development and utilization of facilities, the better the performance of Numfor Airport. Therefore, it is necessary to ensure that the management of Numfor Airport constantly review the development and utilization of facilities at the airport because it will affect the level of performance of the airport.

The results of this study support previous researchers, as revealed by Wiredja *et al.* (2019), who found that the airport processing and non-processing domains have a significant effect on the overall airport service performance. This research is also in line with Laksono *et al.* (2018), who articulated that the construction and development of airports had a positive and significant effect on airport performance. Service quality management is an important part of airport operations as a long-term strategy to increase revenue and performance (Jiang & Liang, 2019).

Furthermore, based on the interviews with Numfor Airport employees, airline employees, and passengers, it can be concluded that the performance of Numfor Airport has not been optimal. Several performance indicators insinuate a low level of conformity. This condition is certainly inseparable from the development and utilization of facilities, which was less optimal.

In terms of productivity, it was obvious that the airport employees worked according to their respective departments, namely administration, aviation security, and aviation accident assistance and fire fighting (PKP-PK). In carrying out their duties to serve passengers and users of airport services, officers were equipped with various supporting equipment and facilities. Numfor Airport operates since the morning, at 06.00 Eastern Indonesia Time to 16.00 Eastern Indonesia Time or according to airline requirements. Even so, employees considered that working hour was less effective, because there was only one flight in one day, particularly in the morning.

Likewise, the service quality of Numfor Airport was also considered less qualified because the facilities in the office were still inadequate. In fact, some of the equipment was not in good condition and was even damaged. Even though employees had received certified education and training to improve their abilities, skills and knowledge, some employees had yet to implement the information they gained from education and training. Hence, passengers assessed that the employees still needed to improve the skills and knowledge.

Employee readiness in providing services was still very poor. Many employees arrived late, which led to less optimal readiness for providing service. Numfor Airport employees realized that in recent years, the readiness of Numfor Airport employees was still far from proper. Some administrative staff and those from operational division sometimes were late for work, which hampered their work readiness.

In terms of service provision, Numfor Airport employees provided passengers with a good response for service, although the service provision was less quick. In fact, many passengers complained about service delays. Many services were less appropriate or not in accordance with the needs and demands of passengers.

The responsiveness of Numfor Airport employees towards complaints and grievance from passengers was still very low. Many complaints from passengers were not well responded due to limited human resources for handling complaints. Even today, many complaints and grievances were not well resolved. Employees also did not provide proper information regarding changes to flight schedules, which made many people being left out of information.

Each service department at Numfor Airport had its own Standard Operational Procedure (SOP). Employees who did not comply with the SOP would be subject to sanctions. Despite the sanctions, thus far, the service provision had not been in accordance with the SOP. This reflects the inadequate accountability of Numfor Airport.

Furthermore, based on the interview, it was also clear that the services provided by Numfor Airport were not as expected by passengers. The airport has not provided precise information regarding flight services. This problem reflects the lack of coordination between the airline and the management of Numfor Airport. Flight schedules that often change and experience delays can be attributed to less optimal airport performance and facilities. This is in accordance with the findings of Zulaichah (2014) that airport performance and facilities played a role and contribute to reducing the level of delays to aircraft departure schedules.

There were lots of complaints about confusing flight schedule. Passengers were often disappointed and complaining about delays in information about flights, which led to many sudden flight cancellations. This study is in line with Hong et al. (2020), indicating that service quality attributes had a positive and significant effect on passenger satisfaction.

The efficiency indicators for Numfor Airport reflect unfavorable results. There had been a constant increase of airport operational cost every year. In contrast with the increase in costs, there was a decrease in service results achieved and traffic flow at Numfor Airport although the higher and more costly operational costs were supposed to lead to better airport services and improvement in the use of aviation services.

In terms of effectiveness, there was an efficient service provision at Numfor Airport. Almost all employees were comfortable working in their respective sections. All work patterns, main tasks, and work functions and mechanisms had been regulated by the work unit at the beginning of each year. However, the work distribution in the administration and PKP-PK was not evenly distributed.

In this line, all Numfor Airport employees obtained their rights fairly based on clear distribution of respective duties. They were rewarded based on their performance. In addition to material rewards, they were also supported by the leadership. All employees had the opportunity to participate in education and training and to develop their career. This condition reflects that in terms of fairness indicator, Numfor Airport had good work performance.

4.4 Priority for Facility Development and Utilization

From the interview, it was made clear that several aspects in terms of the development and utilization of Numfor Airport facilities were considered less optimal. It is necessary for Numfor Airport to repair and evaluate the aspects which were less optimal. The first thing that must be a priority for Numfor Airport is fulfilling the standard facilities based on the currently available, especially for the facilities directly related to basic services, such as aircraft landing and take-off facilities, aircraft parking lots, airport terminals, and electronic facilities. The attempt to improve these facilities to meet the specified standards will ensure flight safety and security at Numfor Airport.

The next priority is to procure unavailable facilities at Numfor Airport. Since it will be impossible to procure all unavailable facilities at Numfort Airport examined in this study, it is highly suggested that Numfort Airport build and adjust the necessary facilities based on the standard for the category of class III airports.

In terms of facility utilization, there is a need for Numfor Airport to increase the utilization of available facilities in order to meet the needs of the public or passengers. Numfor Airport should consider creating special flights for cargo, post and giro. Procurement of special flights for cargo, post and giro will certainly increase the level of air traffic flow at Numfor Airport. This is based on the interviews that the community prefers to send goods by ship because of the larger capacity and regular daily schedules.

V. Conclusion

Based on the results and discussion of the research, this study concludes that the development of facilities at Numfor Airport is less optimal because there are many incomplete facilities and some facilities, which have not been up to the standard. The facilities that have not been built are due to late planning readiness, which leads to the delay in the distribution of the budget for construction. Utilization of facilities at Numfor Airport is far from optimal because existing facilities, such as passenger terminal facilities, prayer rooms, smoking areas, nursery rooms, toilets, prayer rooms, parking areas, complaints rooms, and VIP rooms, which were still incomplete and thus could not be utilized. In addition, existing facilities, such as communication facilities, as well as shopping and restaurant spaces, had not been properly utilized.

Development and utilization of facilities have a positive and significant impact on the performance of Numfor Airport. Upon the improved development and utilization of airport facilities, the performance of Numfor Airport will also get better. For the development and utilization of facilities, it is necessary for Numfor Airport to prioritize the standardization of basic service facilities, procurement of facilities that are not yet available, utilization of communication facilities, and procurement of special flights for cargo, post and giro.

The findings of this study provide important implications for the management and executive board of Numfor Airport to constantly monitor and evaluate the process of developing and utilizing facilities as it will affect the performance of Numfor Airport as a whole. The leadership and management of Numfor Airport must record data and comply with standards for available facilities, as well as analyze the facilities needed, which are not currently available.

The leadership and management of Numfor Airport must always ensure that employees have the appropriate knowledge, abilities and skills in their field or position. Leaders need to emphasize that all employees implement the knowledge obtained from education and training into work. Thus, employees can better provide maximum service quality. In addition, field officers at Numfor Airport must improve and enhance coordination with airlines regarding flight schedules. It is also crucial to directly deliver the information from the airline to passengers so that passengers can adjust their schedules to the new flight schedule.

It is expected that further researchers develop this research by adding other variables, such as passenger satisfaction and the level of the regional economy as a way to analyze the impact of the development and utilization of airport facilities, not only on the performance of the airport itself, but also on the satisfaction and economic activities of the surrounding community. In addition, future researchers are also suggested to enhance the number of research respondents, especially passengers and airline employees, in order to further deepen the analysis and eliminate subjective bias.

References

Akyuwen, R. (2011). The impact of restructuring on the airline performance: The Case of Garuda Indonesia. *Communication Today*, *2*(1), 112–133.

Antwi, C. O., Fan, C., Ihnatushchenko, N., Aboagye, M. O., & Xu, H. (2020). Does the nature of airport terminal service activities matter? Processing and non-processing service quality, passenger affective image and satisfaction. *Journal of Air Transport Management*, *89*, 101869. https://doi.org/10.1016/j.jairtraman.2020.101869

Ardiansyah, F. N., & Ridwanudin, O. (2019). The Influence of Airport Service Quality toward Passenger Satisfaction. *3rd International Seminar on Tourism (ISOT 2018)*, 370–374.

Ashford, N. J., Stanton, H. P. M., Moore, C. A., Coutu, P., & Beasley, J. R. (2013). *Airport Operations*. New York: McGraw Hill.

Bogicevic, V., Yang, W., Bilgihan, A., & Bujisic, M. (2013). Airport service quality drivers of passenger satisfaction. *Tourism Review*, *68*(4), 3–18. https://doi.org/10.1108/TR-09-2013-0047

Halpern, N., & Graham, A. (2013). *Airport Marketing*. New York: Routledge.

Hannam, K., Sheller, M., & Urry, J. (2006). Editorial: Mobilities, Immobilities and Moorings. *Mobilities*, *1*(1), 1–22. https://doi.org/10.1080/17450100500489189

Hong, S.-J., Choi, D., & Chae, J. (2020). Exploring different airport users' service quality satisfaction between service providers and air travelers. *Journal of Retailing and Consumer Services*, *52*, 101917. https://doi.org/10.1016/j.jretconser.2019.101917

Hong, S.-J., & Jun, I.-S. (2006). An evaluation of the service quality priorities of air cargo service providers and customers. *World Review of Intermodal Transportation Research*, *1*(1), 55–68.

Humphreys, I., & Francis, G. (2002). Performance measurement: a review of airports. *International Journal of Transport Management*, *1*(2), 79–85. https://doi.org/10.1016/S1471-4051(02)00003-4

Jiang, H., & Liang, T. (2019). Investigate airport service quality-A case study of airports in Shanghai. *International Journal of Business, Economics and Management*, *6*(2), 61–75. https://doi.org/10.18488/journal.62.2019.62.61.75

Kim, M.-H., Park, J.-W., & Choi, Y.-J. (2016). A study on the effect of airport choice attributes on airport users' satisfaction and behavioural intentions: The case of Gimpo International Airport. *Journal of Airport Management*, *10*(2), 145–157.

Laksono, T. D., Kurniasih, N., Hasyim, C., Setiawan, M. I., & Ahmar, A. S. (2018). The Impact of Airport Performance towards Construction and Infrastructure Expansion in Indonesia. *Journal of Physics: Conference Series*, *954*(1), 12015. https://doi.org/10.1088/1742-6596/954/1/012015

Mansur, A. Z., Setiawan, B., & Yahya, K. (2020). Studi Pelayanan dan Fasilitas Terminal Penumpang Bandar Udara di Ibukota Provinsi Kalimantan Utara. *PADURAKSA: Jurnal Teknik Sipil Universitas Warmadewa*, *9*(2), 212–228. https://doi.org/10.22225/pd.9.2.1866.212-228

Nugroho, A. (2021). Study of Airport Service Quality and Profitability in Indonesia. *Economics and Business Quarterly Reviews*, *4*(2), 172–188. https://doi.org/10.31014/aior.1992.04.02.354

Pandey, M. M. (2016). Evaluating the service quality of airports in Thailand using fuzzy multi-criteria decision making method. *Journal of Air Transport Management*, *57*, 241–249. https://doi.org/10.1016/j.jairtraman.2016.08.014

Park, Y., & Ahn, S. B. (2003). Optimal assignment for check-in counters based on passenger arrival behaviour at an airport. *Transportation Planning and Technology*, *26*(5), 397–416. https://doi.org/10.1080/0308106031000163588 7

Prentice, C., & Kadan, M. (2019). The role of airport service quality in airport and destination choice. *Journal of Retailing and Consumer Services*, *47*, 40–48. https://doi.org/10.1016/j.jretconser.2018.10.006

Suárez-Alemán, A., & Jiménez, J. L. (2016). Quality assessment of airport performance from the passengers' perspective. *Research in Transportation Business & Management*, *20*, 13–19. https://doi.org/10.1016/j.rtbm.2016.04.004

Wang, Z., & Song, W.-K. (2020). Sustainable airport development with performance evaluation forecasts: A case study of 12 Asian airports. *Journal of Air Transport Management*, *89*, 101925. https://doi.org/10.1016/j.jairtraman.2020.101925

Wiredja, D., Popovic, V., & Blackler, A. (2019). A passenger-centred model in assessing airport service performance. *Journal of Modelling in Management*, *14*(2), 492–520. https://doi.org/10.1108/JM2-10-2018-0171

Wyman, O. (2012). *Guide to Airport Performance Measures*. Montreal: Airports Council International.

Yu, M.-M. (2010). Assessment of airport performance using the SBM-NDEA model. *Omega*, *38*(6), 440–452. https://doi.org/10.1016/j.omega.2009.11.003

Zulaichah, Z. (2014). Pengaruh Fasilitas Bandar Udara Terhadap Kinerja Ketepatan Waktu Maskapai Penerbangan. *Warta Ardhia*, *40*(4), 223–234.