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Efforts to Increase Income of PT Angkasa Pura Ii Through Cargo and Logistics Business Services Managed By Subsidiaries (PT Angkasa Pura Kargo)

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Abstract: This research explores the new strategy PT Angkasa Pura II (AP II) adopted as an airport operator to innovate to increase revenue through its subsidiary PT Angkasa Pura Kargo (APK) in the cargo business through a canvas model approach. This research identifies the potential for business development in cargo services, PT Angkasa Pura II through its subsidiary, namely PT Angkasa Pura Kargo (APK) so that it can run cargo business directly, especially at Soekarno-Hatta International Airport. By improving cargo services, it is hoped to it will be directly proportional to increasing PT Non Aero's income. Angkasa Pura II This research carries out 2 stages of analysis, namely analyzing cargo estimates for the coming year and developing existing business models to create new business models that are opportunities to increase income using canvas business analysis. Based on the analysis results, it was found that the potential demand for cargo at Soekarno-Hatta International Airport shows an increasing trend of 4.67% per year. Based on this data, business opportunities to increase non-aero income through cargo business services can still be possible by carrying out business development carried out by PT APK.

Keywords: Business Strategy, Cargo, Forecast, Business Model Canvas

INTRODUCTION

The COVID-19 pandemic that has hit the world in recent years has had a significant negative impact on the air transportation industry. The impact is visible at airports managed by PT. Angkasa Pura II, especially Soekarno-Hatta International Airport, experienced a very significant decline in the number of passengers, aircraft movements and cargo flows. This situation directly affects revenue, operational costs and service quality at Soekarno-Hatta International Airport. The decline in the number of passengers and aircraft traffic has a direct impact on Soekarno-Hatta International Airport's revenue

In 2018, Soekarno-Hatta International Airport recorded excellent performance. Data shows an average of 180,000 passengers per day and 1,200 aircraft movements (takeoff & landing). Revenue in 2018 reached IDR 6.8 trillion with a net profit of IDR 3.5 trillion.

However, in 2021, the performance of Soekarno-Hatta International Airport experienced a significant decline, with an average of only 51,000 passengers per day, even reaching only 700 passengers per day when the Delta variant of the Covid-19 outbreak hit in July 2021. Aircraft movements also decreased to around 190 takeoffs & landings. Revenue in 2021 was recorded at IDR 3 trillion with a net profit and loss of IDR 248 million. This condition encourages PT. Angkasa Pura II to formulate a new strategy as an airport operator. Although airport operations must continue, operational costs must be reduced as much as possible, while service to users must remain without complaints. Apart from that, regulations related to travel restrictions for domestic and international passengers are also experiencing dynamic changes.

As airport operator, PT. Angkasa Pura II has the responsibility to always provide the best quality services to service users to ensure customer and airport service user satisfaction. Although airport business income does not only depend on airport services, it also involves three main sources of income, namely aeronautical income, non-aeronautical income and cargo services.

PT. Angkasa Pura II does not only act as an airport operator, there is a subsidiary entity that plays a role in cargo and logistics services, namely PT Angkasa Pura Kargo which currently only relies on warehouse rentals as income. With the existing conditions, it is hoped that new business opportunities will emerge where PT Angkasa Pura Kargo can act as a direct cargo agent, which will enable existing businesses under the auspices of PT. Angkasa Pura II to carry out business processes independently. In parallel, if revenue from the cargo side through PT APK increases then PT. Angkasa Pura II will increase too.

PT. Angkasa Pura II certainly has the main and highest source of income from the aeronautical side, such as flight services (JP2), aircraft servicing, placement and storage (JP4U), air passenger services (JP2U) and use of aviobridges and counters. If you want to increase aeronautical and non-aeronautical revenues, what must be increased is the volume of airplane passengers. On the other hand, cargo revenue has increased from year to year even during Covid-19. Based on the history of PT. Angkasa Pura II, regarding revenue from cargo, experienced an increasing trend from year to year and in 2020 experienced a decline due to the Covid-19 pandemic. However, recovery from the cargo business can be seen more quickly compared to passenger traffic and in 2022 it will already experience an increase, as seen in Figure 1. Currently, PT. Angkasa Pura Kargo (APK) is limited to rental and concession income. This shows that there are business opportunities that can be developed by PT. APK to increase revenue by implementing door-to-door services in the context of cargo services. Therefore, increasing revenue from the cargo side is the basis for the company's motivation to improve overall cargo services.

There is potential for business development in cargo services that can be explored at Soekarno-Hatta International Airport. Currently, airports only act as operators that generate income through cargo and aircraft postal services (PJKP2U). However, the cargo service process is currently still dominated by external cargo agents, PT APK as a subsidiary is expected to be able to compete with similar companies. Data for 2022 shows revenue performance from cargo of 10% per year.

With the increasing trend from year to year, of course there is an opportunity to further increase income from the cargo service side. Efforts to develop the cargo business with the door to door service concept are expected to be directly proportional to the increase in income. Starting to pick up shipments/packages from shippers, becoming a goods delivery agent, transportation service provider (air bill of lading publisher), as a regulated agent, managing warehouses, cargo transportation (preter) and delivery services to consumers using digital applications.

In order to realize business development efforts through the door-to-door service concept, an in-depth study is needed. Therefore, the research focus in this thesis is focused on

developing PT's existing business model. Angkasa Pura Kargo, with the aim of improving the quality of cargo and logistics business services.

LITERATURE REVIEW

In the view of Dougherty & Pfaltgraft (1990; 15-16), theory is an intellectual tool that plays a role in several things. First, theory helps us organize the knowledge we have and helps us formulate it. Questions are important, guide us in setting priorities in research, and help us choose appropriate research methods. Second, theory helps connect knowledge from one field of science with other fields of science. Finally, theory provides a useful framework for evaluating policy recommendations, including recommendations related to the social sciences. Dougherty & Pfaltgraft also classified theories into three different levels, namely Grand Theory, Middle Theory, and Applied Theory.

Grand Theory, Agency theory is a concept that explains the contractual agreement between a principal (principal) and an executor (agent). The principal is the party that gives authority to another party, namely the agent, to carry out all activities on behalf of the principal in his role as decision maker. The agency theory proposed by Jensen and Meckling (1976) describes that an agency relationship, or the relationship between a principal and an agent, is a contract in which one or more individuals (the principal) engage another individual (the agent) to perform certain services on behalf of the principal. power of attorney, and this also involves giving authority to the agent to make the best decisions for the person granting the power of attorney. In this research, the role of the principal is PT. Angkasa Pura II is the main holding company that can instruct its organization to obtain maximum profits and carry out company expansion. PT. Angkasa Pura Kargo acts as an agent in carrying out the policies needed to optimize profits and carry out company expansion.

Middle Theory, Income can be interpreted as an increase in total assets or a decrease in liabilities for expenses arising from the delivery of goods and services or other business activities in another period. According to Sukimo (2013), income is the amount of income received for work performance during a certain period. Income can also be interpreted as an inflow of assets or a reduction in debt obtained from the delivery of goods or services to customers (Samryn, 2011).

Types of income can be divided into 2, namely income obtained from the main business and income obtained from side businesses (Kasmir, 2012). In this research, based on Minister of Transportation Regulation Number 179 of 2015, the sources of income from airports are as follows: Aeronautical Services Revenue 1. Revenue from Aircraft Landing, Placement, and Storage Services (PJ4U). 2. Aircraft Passenger Service Income (PJP2U) 3. Service Revenue. 4. Ground Handling Services Income 5. Revenue from Garbarata Use Services (Avio Bridge). 6. Extended Fee Service Income Non-Aeronautical Services Income: 1. Space and Land Rental Income. 2. Concession Income. 3. Vehicle Parking, Platform, and Airport Pass Revenue. 4. Telephone Usage Income. 5. Counter Income. 6. Revenue from Using the Waiting Room (First Class Lounge). 7. Advertising Income.

Applied Theory, Definition of Airport According to Law No. 1 of 2009 concerning Aviation, an airport is an area on land and/water with certain boundaries which is used as a place for aircraft to land and take off, boarding and disembark passengers, loading and unloading of goods, and a place for intra and inter-transfer. mode of transportation, which is equipped with aviation safety and security facilities, as well as basic facilities and other supporting facilities (Ministry of Transportation of the Republic of Indonesia, 2009). Airport Functions Ministerial Decree No. 166 of 2019 concerning the National Airport Order divides airports into 3 functions, namely (Ministry of Transportation of the Republic of Indonesia, 2019): 1. Airports are nodes in the air transportation network per the hierarchy of functions, namely airports are distribution centers and non-dissemination centers. 2. Airports as gateways

for national and international economic activities. 3. Airports as places of activity for changing modes of transportation.

National Airport Order, Based on KM 166 of 2019 concerning the National Airport Order, airports in Indonesia are classified based on function, hierarchy and classification. The following are airports with primary scale collector (PP), secondary collector (PS) and tertiary collector (PT) status in Indonesia

Cargo and Logistics Business Services, Based on Minister of Transportation Regulation number 81 of 2021 concerning airport business activities, handling of cargo and post is included in airport-related services, the availability of which is one of the airport business activities. So increasing cargo business services will also have an impact on airport revenues.

Based on the International Civil Aviation Organization, cargo is defined as all goods carried by aircraft except post and baggage in line with Airport Council International which states so. According to Minister of Transportation Regulation number 59 of 2019, the security of cargo and post as well as the supply chain of cargo and post transported by aircraft. Cargo is any item carried by an aircraft other than postal items, items needed by the aircraft during the flight that are used up, and baggage that does not have an owner or baggage that has been mishandled.

According to a report compiled by the World Bank in 2018, Indonesia's Logistics Performance Index (LPI) experienced a significant increase, reaching 46th place with a score of 3.15, compared to the previous ranking which was in 63rd position. with a score of 2.98. Although there has been an increase in the LPI ranking, this increase does not fully reflect a comprehensive resolution of the various problems currently developing in the logistics industry sector in Indonesia. One of the problems that has emerged is the high logistics costs in the country. For example, in 2017, logistics costs in Indonesia reached around 23.5%, while in several other ASEAN member countries, such as Vietnam (15%), Thailand (13.2%), Malaysia (13%), and Singapore (8.1%), showing a lower level of logistics costs.

Feng B, et al (2015) stated that air cargo transportation involves a series of steps to move goods from one place to another. It starts with the shipper, who wants to send their products to different locations efficiently and affordably. Carriers help connect shippers with airlines. Then the road carrier handles land transportation before and after the goods are flown. Airlines take care of receiving, storing, moving, tracking and loading/unloading cargo. Finally, the consignee receives the shipment.

The basic concept of cargo and logistics business services involves various aspects related to the efficient management, delivery and distribution of goods from one location to another. Cargo and logistics business services include various activities related to the efficient management, delivery and distribution of goods from one location to another. Cargo and logistics business services can be divided into 6 aspects, namely transportation, warehousing and inventory management, material handling, logistics information systems and tracking and monitoring.

According to Bardi (2017), cargo and logistics business services involve activities such as transportation, warehousing, inventory control, and managing the flow of information related to the movement of goods. This aims to ensure goods reach their final destination on time, cost efficiently, and in good condition. Meanwhile, another opinion was expressed by Lambert et al. (2018) who describe cargo and logistics business services as a series of activities involving order taking, order processing, transportation, warehousing, and delivery of goods to customers. The main objective of this service is to ensure the smooth flow of goods from producers to consumers by optimizing efficiency and process speed so that reliable, fast and competitive service in terms of costs will influence whether cargo and logistics business services can develop or not (Coyle, 2017) .

A similar thing was conveyed by Mangan et al. (2016) explained that cargo and logistics business services include planning, organizing and controlling physical activities and information related to the movement of goods. These activities include picking, processing, storing, packaging, transporting and sending goods by taking into account factors such as distance, time, cost and security as well as supply chain management which consists of coordinating and managing activities. related to the movement of goods. This includes planning, procurement, production, inventory control, and distribution of goods with a focus on timely delivery, efficient costs, and quality service to customers (Bowersox, 2013).

When viewed from an air cargo perspective, air cargo business services at airports involve various activities related to the delivery and management of goods via air transportation modes which are influenced by airport infrastructure, the process of receiving, storing, handling, loading, monitoring, tracking, security and customs. Air cargo business services can have a significant contribution in increasing airport revenues through several aspects, namely the contribution of cargo rates, the provision of these facilities can generate additional income from space rental or use of cargo facilities, offering additional services such as cargo security, special inspection, or handling of dangerous cargo. (dangerous goods) (Gaggero, F., and Piga, C. A., 2014). In the book "Airline Operations and Management: A Management Textbook" by Cook, G. (2016), it is stated that air cargo business services can increase airport revenues by increasing customer satisfaction, partnerships and collaboration as well as increasing business activities. By providing efficient and reliable air cargo business services, airports can attract customers and airlines to use their cargo facilities on a regular basis. High customer satisfaction will have a positive impact on cargo volume and airport revenue. Collaboration can generate additional income for airports through various forms of cooperation, such as revenue sharing or payment of facility fees and with strong air cargo business services, airports can attract more airlines and logistics companies to operate there. Increased Business Activities

In increasing airport business activities, Redondi, R., and Malighetti, P. (2017), stated that several business strategies that can increase airport business activities and revenues include route development and service diversification. The development of new routes can result in significant passenger growth and business activity at airports. When airports are successful in attracting airlines to open new routes or expand existing routes, this can increase connectivity and flight availability to a wider range of destinations. The impact is an increase in the number of passengers using the airport, which in turn will increase business activities at the airport, including income from airport use fees and non-aviation income such as retail sales at the terminal (Nicolau, J. L., and Mas, F. J., 2017) . In addition, successful new or additional routes can provide benefits such as increased tourist visits, local economic growth, and increased business investment in areas around the airport. The more routes available, the more airlines and passengers will be interested in using the airport, which will increase business activity and airport revenue (Halpern, N., and Graham, A., 2016).

METHOD

The data was analyzed using 2 methods, namely the forecasting analysis method and the canvas model business analysis method.

The forecasting method is used to understand the cargo and logistics potential at Soekarno-Hatta International Airport. The canvas business model method was used by researchers to create the most optimal business model based on the results of interviews with employees at PT. Angkasa Pura Kargo, PT. Angkasa Pura Logistics and PT. Angkasa Pura II. It is hoped that these two analyzes can answer the questions in this research.

The use of the Canvas Business Model in this research is based on the need to holistically understand the key elements that form PT's business structure. Angkasa Pura Cargo. This model provides a comprehensive visual framework for analyzing and detailing customer

segments, value propositions, distribution channels, customer relationships, revenue sources, key activities, key resources, key partners, and cost structures. By focusing on this analysis, the Business Model Canvas is expected to provide in-depth insight into critical elements in existing business models, enable the identification of development opportunities, and provide a foundation for strategic changes that can increase company revenues in the cargo and logistics sector. This approach is considered relevant in the context of this research because it provides a comprehensive picture, facilitates a better understanding of business dynamics, and allows the identification of appropriate solutions to improve business performance.

RESULT AND DISCUSSION

This research uses two linear regression methods. The independent variables (variables that influence) and dependent variables (variables that are influenced) that have been collected through a literature review are then modeled to obtain the expected regression equation.

Probability Value / P Value is the magnitude of the opportunity observed from the test statistics. The error value obtained by the researcher is from the results of statistical calculations (Statistical Test Results) while the alpha value is the maximum error determined (used as a benchmark) by the researcher. In research, the P Value must be more than alpha, namely 5% or 0.05. Apart from that, there is R Square which shows how much the independent variable influences the dependent variable with a value of 0-1 with the condition that the closer to number one the better.

The following are the statistical test results of the model used in this research using data analysis in Microsoft Excel for the domestic cargo regression model as follows.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0,848138758
R Square	0,719339354
Adjusted R Square	0,608228242
Standard Error	153454795,7
Observations	10

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	5,43E+17	5,43E+17	23,0672	0,001351
Residual	9	2,12E+17	2,35E+16		
Total	10	7,55E+17			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	37561895,92	7820781	4,802832	0,00097	19870061	55253731	19870061	55253731

The results of statistical data processing explain that this model has an R Square value of 0.719. So, this domestic cargo forecast model can be used with the following regression equation.

$$Y = 37561895{,}92\ X1$$

Information:
Y = Total Domestic Cargo
X1 = Plan Year

The following are the statistical test results of the model used in this research using data analysis in Microsoft Excel for the international cargo regression model as follows.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0,848138758
R Square	0,719339354
Adjusted R Square	0,608228242
Standard Error	153454795,7
Observations	10

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	5,43E+17	5,43E+17	23,0672	0,001351
Residual	9	2,12E+17	2,35E+16		
Total	10	7,55E+17			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	47792756,84	6925403	6,90108	7,06E-05	32126407	63459107	32126407	63459107

The results of statistical data processing explain that this model has an R Square value of 0.719. So, this international cargo forecast model can be used with the following regression equation.

$$Y = 47792756{,}84X1$$

Information:
Y = Number of International Cargo
X1 = Plan Year

Next, a forecast is made for the variables that will be tested in the plan year. Determining a Business Model with the Business Model Canvas
Existing Business Environment

PT. Angkasa Pura Kargo offers 3 services as a cargo service operator, logistics integration system provider and logistics infrastructure provider. As a cargo service operator, APK can be a line 1 operator, distribution center, regulated agent, cargo sales agent, freight forwarding, baggage handling services, human remains cargo, export/import handling and customs clearance up to trucking. APK also has warehouses at 16 airports in Indonesia so that its services can be accessed throughout Indonesia. Currently, the company's focus is on middle-mile services where it plays a role as an intermediary between suppliers and consumers.

Data Analysis Model

The questionnaire is structured based on the components in the Business Model Canvas. Questionnaires were then distributed to respondents to obtain the views of experts in their fields in determining the most suitable business model to be implemented in an effort to increase income at PT. Angkasa Pura Cargo. There are 9 variables that will be asked about, namely related to Value Proposition, Customer Segment, Channel, Customer Relationship, Revenue Streams. Key Resources, Key Activities, Key Partnerships, and Cost Structure.

Analysis of Questionnaire Results

Based on the results of the questionnaire distributed to stakeholders at the airport, the variables that support increasing PT. Angkasa Pura Kargo from the cargo business is as follows

Value Proposition

The company's value proposition or consumer value proposition must of course provide value for its customers. The values that have been implemented by PT. Angkasa Pura Kargo clearly must be different from other companies so that consumers have a reason to choose PT products. Angkasa Pura Kargo compared to products from other companies. Based on the answers from the respondents, products from PT. Angkasa Pura Kargo that can be added is the development of cargo service facilities and infrastructure, service development and technology development.

Development of cargo service facilities can take the form of increasing the number of services at airports managed by PT. Angkasa Pura II, if currently PT. Angkasa Pura Kargo is already present at 16 airports to 20 airports or in the sense of all airports managed by PT. Angkasa Pura II can be served by PT. Angkasa Pura Kargo in its entirety. Development of infrastructure facilities can take the form of expanding warehouse areas in locations that have high demand.

Improving service can take the form of standardizing all cargo and logistics services so that customers can experience the same experiences when using PT services. Angkasa Pura II. One respondent thought that standardizing services, such as increasing the level of service by creating a service level agreement, was considered important. Apart from improving services, to increase company income of course the company must be able to add service products, if currently PT. Angkasa Pura Kargo operates in the middle mile business line, APK can improve end to end process services to become a 3 party logistics company where business processes from the first mile, mid mile to the last mile can be carried out in an integrated manner by PT. Angkasa Pura Logistics. Thus, the delivery process can be done door to door. Another service that can be added value for the company is in personal service where the business process does not only move between business to business but also business to customer.

The differences that exist between the existing business model of PT. Angkasa Pura Kargo and the results of the new design, it is clear that there is significant innovation. The current existing business model may focus on revenue from rental income and concessions, while the new design integrates new value propositions, marketing strategies, and other key elements into the PT business model. Angkasa Pura Kargo, depicts a striking innovation. This new approach enriches the company's service portfolio with special emphasis on door-to-door service and diversification of cargo and logistics services. The application of technology, such as online reservation and ordering system applications, strengthens relationships with customers and increases operational efficiency. In addition, expansion in personal effects services, coal shipments, dooring, and seamless door to door services, shows a proactive response to growing market needs.

In terms of customer segments, the revised business model covers a wide range of stakeholders, from large companies to individuals. The emphasis on balance between corporate and individual customers shows the company's adaptability to complex market dynamics. Through updated distribution channels, including the use of social media and online applications, the company expanded its reach and improved the affordability of its cargo and logistics services.

Renewal in customer relationships reflects proactive efforts to build customer engagement and loyalty. Programs such as customer gatherings, coffee mornings, and stimulus to cargo entrepreneurs, together with KPI-based evaluations, confirm the company's commitment to superior service and customer satisfaction.

Financially, the increase in revenue from new sources, such as dooring services and airway bill sales, along with the bundling price strategy, represents prudent revenue diversification. The adoption of this diversified revenue model, along with profit margins kept at around 7-10%, creates a strong financial foundation for business growth and sustainability.

Lastly, expanded collaboration through strategic partnerships with cargo companies, airlines, technology providers and facilities suppliers creates a robust business ecosystem. By placing focus on human resources, optimized processes and facilities at various airports, the company ensures adequate infrastructure to support growth and operational efficiency in the face of ever-changing market challenges. This new business model reflects a solid step forward in responding to market demands and increasing PT's competitiveness. Angkasa Pura Kargo in the cargo and logistics industry.

CONCLUSION

Based on cargo forecasting analysis calculations at Soekarno Hatta International Airport, it is found that the potential demand for domestic cargo at Soekarno Hatta International Airport is 713 million cubic meters in 2030, 1.1 billion cubic meters in 2040 and 1.4 billion cubic meters in 2050, while the potential demand for international cargo at Soekarno International Airport Hatta is 908 million cubic in 2030, 1.3 M cubic in 2040 and 1.8 M cubic in 2050. So the total potential cargo demand at Soekarno Hatta International Airport is 1.6 M cubic in 2030, 2.4 M cubic in 2040 and 3.3 M cubic in 2050.

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