CHAPTER 1
INTRODUCTION

1.1 General Research Object

Soekarno-Hatta International Airport is one of the airport in Indonesia managed by PT Angkasa Pura II (Persero) located in Tangerang Banten. Soekarno-Hatta International Airport stands on the area of 2137, 82 hectares, currently departing and arriving of the aircraft carried out in two runways. Soekarno-Hatta International Airport has 3 sub-terminals, Terminal 1 (Domestics flights) Terminal 2 (Domestic & International flights), and Terminal 3 (Domestic & International flights). (Angkasa Pura II, 2017)

Figure 1.1 Soekarno-Hatta Airport Logo

Source: Angkasa Pura II (2016)

Soekarno-Hatta International Airport which is the largest airport in Indonesia. Became one of the most important airports because of Soekarno-Hatta International airport as an economic growth in Indonesia. The Airport has a value to show the character and the culture of the country. Soekarno-Hatta International Airport based on the world's Top 100 Airport 2018 from Skytrax rank position in 45th it is higher than Abu Dhabi International Airport (Skytrax,2018). Also, Soekarno-Hatta International Airport most passenger traffic in 2017 on world rank 17th based on Airport Council International (International, 2018)

Vision and Mission

- **Vision**

  "*The Best Smart Connected Airport Operator in The Region"*

- **Mission** Is **To** support the achievement of its vision, Angkasa Pura II has formulated missions that cover all components, namely:

  • Ensuring that safety and security aspect always become the key priority.

  • Providing world-class infrastructure and service to support the economic development of Indonesia through inter-region and inter-country connectivity.

  • Offering reliable, consistent and enjoyable traveling experience to all customers by the use of modern technology.

  • Developing partnership to complement its ability and to expand company offering

  • Becoming the preferred SOE and maximizing potentials of each employee of the company

  • Upholding corporate social responsibility aspect

  (Angkasa Pura II, 2016)

In the midst of a fast-pacing digital era, Soekarno-Hatta International Airport must continue to be able to innovate and adapt to the development of the era to keep growing. Never stops bringing service innovation in serving its customers.

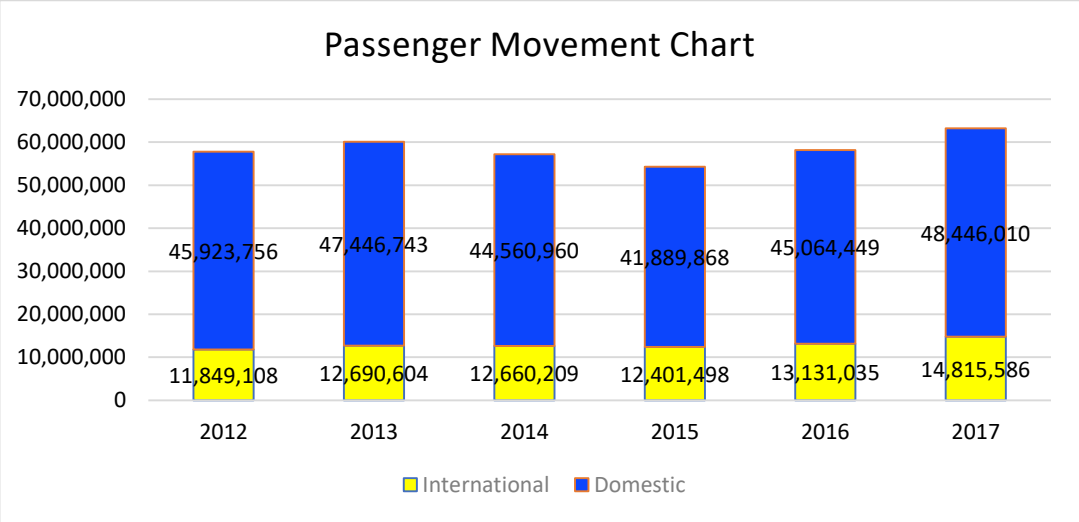
1.2 Research Background

The growth of technology bring revolution toward the industrial field, this revolution also gives impact to the aviation industry including (Airport and Airline). Revolution of aviation industry begin from industry 1.0 (Airport 1.0) until 4.0 (Connected Airport) The growth of technology to industry 4.0 in aviation industry make airport service management develop to digital airport concept. (Wavestone, 2017).

Soekarno Hatta International Airport has implemented the digital concept, According to CEO PT. Angkasa Pura II M. Awaludin airport service must apply digital technology to support service and provide high value in each airport in Indonesia. So, it makes airport service management in digitalization era develop Soekarno-Hatta International Airport with smartly connected airport concept. (Secretary, 2017)

Smart airport concept purpose to increase the value of the airport to achieve the goal of a business airport by using digital, it is called airport digital life & experience airport digital will directing the business goal that is customer experience, operating efficiency, and business encashment. (Angkasa Pura II, 2017) As we know the Soekarno Hatta international airport is the airport with the highest number of passenger's movement in Indonesia.

Chart 1.1 Soekarno-Hatta Passenger Movement

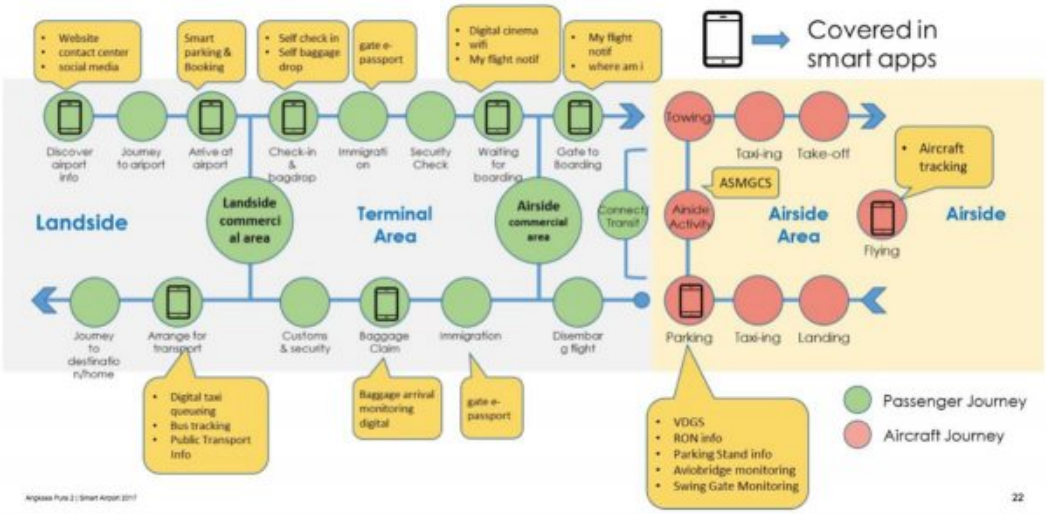


Source: Angkasa Pura II (2017). Modified By Author

According to PT Angkasa Pura II in the chart 1.1, passenger movement over period 2012-2017, the fluctuating occurrence of the passenger movement but in period 2015-2017 the passenger movement experienced a significant increase both domestic and international passengers.

The increasing passenger in Soekarno-Hatta International Airport makes the airport service management as PT Angkasa Pura II make a good customer experience in every customer touch point (pre-journey, on journey and post journey). (Awaluddin, 2017)

Figure 1.2 Customer Touch Point Process



Source: Awaluddin, M (2017)

In touch point on the journey is a process where the passenger does check in until boarding. As a digital airport, Soekarno-Hatta International Airport gives ease of service to the passenger by providing the facility that digital based purpose speed up time and more efficiently. Therefore Soekarno-Hatta airport management provides self-check-in kiosk to facilitate customers, reduce the queue of passenger density at the check-in counter and increase the on-time performance of the airline.

As a benchmark of self-check-in, at others country is Changi Airport, Singapore. Based on Skytrax Changi achieve six times award for best airport in the world

Figure 1.3 CEO of Changi Airport Group Received The Skytrax World's Best Airport Award

Source: Changi Airport Group (2018).

Changi achieves award because all the service use technology and have good services. One of the unique airport services in Changi airport is a Changi Airport want to create journey experience for all passenger that supported by technology, service, and entertainment based on (Skytrax, 2018). Build a customer's experience when passenger arrived at the airport and want to do a check-in. 80% service of Changi airport has served by self check-in kiosk. Since 2015, Changi Airport Group (CAG) has introduced self-service check-in options in terminal 1,2,3 and especially for terminal 4 for users on a larger scale, where passengers can print boarding passes and bag tags on their own. Now, they can also check-in their luggage at the new automated bag-drop machines (Changi Airport Group, 2017).

The concept of FAST it is mean automatic system to make passenger easier and fast to do check in by FAST self-check-in, begin from check in until boarding to the aircraft. All the passenger does not need to queue in check-in kiosk, this device is lined up in the arrival area. (Changi Airport Group, 2017)

There is 65 FAST Check In units that can be used in lines 4 to 7. This device will display the company as well as their destination. As a verification, just enter your passport on the scanner or scanner available. Passengers can also directly choose seats that are still available. After that, the machine will print a boarding pass including a sticker or marker tape. "The machine will scan and photograph every face with facial recognition technology," said Senior Manager of T4 Operations Development Chua Ching Hock while demonstrating FAST process concepts on T4 Changi Airport, Singapore, Tuesday, July 25, 2017. (Changi Airport Group, 2017)

So, the FAST concept is integrated with a baggage tag scanner and Self Immigration service. This concept hopefully can be increasing the productivity and effectivity passenger also the journey experience at the airport.

As a benchmark of Changi Airport to make a Smart Airport concept in Indonesia especially for Soekarno-Hatta Airport, Airport Management Soekarno-Hatta provides self-check in also in terminal 1,2 and 3 this self-check in have the same

purpose to increase the effectivity of passenger, make a journey experience and reduce a queue in check in process. Soekarno-Hatta International Airport based on Airport Service Quality (Airport Service Quality, 2018)

provides 78 self-check in kiosk that separated in terminal 1 have 16 items, terminal 2 have 12 items, and in terminal 3 have 50 items self-check in kiosk. Types of self-check in machine have different types such as C200 series 411 and AX4 Doul Core the different in each machine also have a different capacity, quality, and feature that provide. The explanation of self-check in machine specification will be shown in the below.

Table 1.1 Self-check in Machine Specification

Type of Machine	Hardware & Software	Capacity	Feature	Price
C200 series 411	Hardware : Panasonic, Monitor from BenQ Software : Microsoft Indonesia	Fluctuate capacity (estimation 3000 - 5000 boarding pass)	Scan Passport, Print Boarding pass and seat selection	Rp 18.500.000 / machine
AX4 Doul Core	Hardware : Panasonic, Monitor from BenQ Software : Microsoft Indonesia with integrated system	Fluctuate capacity (estimation 3000 - 5000 boarding pass)	Print Boarding pass	Rp 16.500.000 / machine

Source: Airport Service Quality (2018)

The specification table of self-check in machine looks differentiation in hardware and software also the feature. Differentiation of machine impact to the airline to decide the type of machine that will be used and also appropriate with the service that provides by the airline. In Soekarno-Hatta International Airport both of machine is used in the different area, in terminal 1 and 2 type of machine use is AX4 Doul Core, AX4 type is suitable with low-cost carrier airline because AX4 provide an integrated system. In AX4 machine type, there are available several airline options of self-check-in. About the machine C200 series 411 in Soekarno-

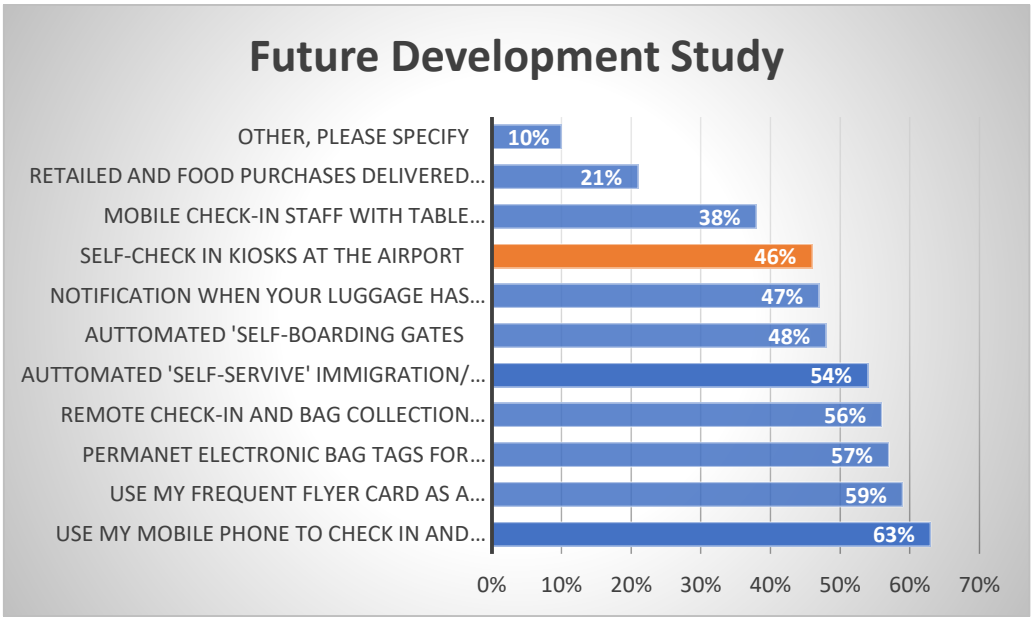
Hatta International Airport located in terminal 3, an airline with full service more suitable use that machine because C200 series 411 provide complete feature and focus to one airline.

The development of process check-in service in Indonesia has developed into 4 ways there are conventional check-in, web check-in, mobile check-in, and self-check in. as especially in Soekarno-Hatta International Airport Development self -check-in should be the main priority in airport service, with the target is going to the smart connected airport. Provide service and quality that supported by technology based on IoT (Internet of Things) airport service give a comfortability for the passenger when they come to the airport.

The passenger does not need to queue at check-in counter because airport service management has provided self-check in kiosk in each check-in area, the innovation that developed by airport service management have a purpose to reduce the queue in check-in counter and increase the on-time schedule departure. The usage of self-check in at Soekarno-Hatta International Airport seen not maximal to use, optimization of self-check in usage just maximized in peak season (middle year and last year). (Panduwinata et al., 2018)

For several passengers, journey experience begins from the passengers goes to the airport until they arrived at airport destination. So, the journey experience of the passenger must be given priority. The growth of technology including IoT (Internet of Things) digitalization start to join into the airport service business, the digitalization of airport expected to give a service and easier way to passengers. Popa et al., (2016) in smart airport studies revealed what passengers would like to see in the airports in the next five years. Seen in chart 2.2 as future development study at the airport especially for service adoption technology.

Chart 2.2 Future Development Study at The Airport

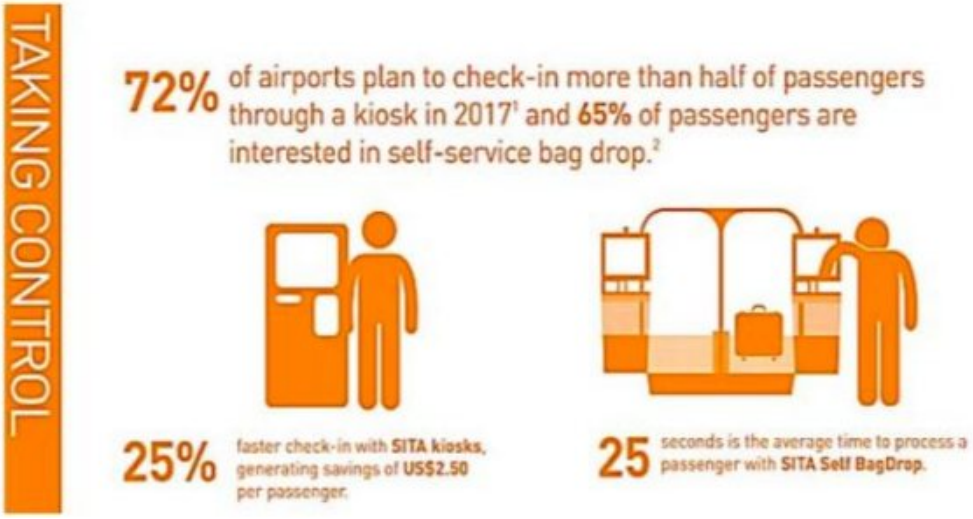


Source : Popa et al., (2016)

Chart 1.2 above seen 46% people want to see development about self-check in kiosk. Self-check in is a new innovation for airport service to customers, especially in Soekarno-Hatta International Airport. So that, need more attention fro development on self-check in kiosk. According to Ministry of Transportation, Sumadi (2018) " Growth of technology in airport necessary to developed to support Global Economic Transportation Open Sky 2020" that is how transportation in the world can be connected and integrated each other including airport, airline, railway and bus connectivity to city, airport as a gate of economic when passenger is come to doing a business or holiday, our neighbour country Singapore has implemented self-check in Kiosk with a high precision and education also regulation about check-in. Based on passenger perspective self-check in kiosk have to give information in detail, because several people see self-check in will give positive impact to the passenger in Indonesia, with regeneration system and information update about that self-check in.

Based on Société Internationale de Télécommunications Aéronautiques, (SITA) usage of self-check in kiosk in 2017 less than 72%. The result of usage self-check in kiosk make airport service management and passenger realize self-check in more efficient. Figure 1.4 shown SITA data survey for usage self-check in kiosk.

Figure 1.4 SITA Self-Check In Survey



Source : Popa et al., (2016)

Self-check in kiosk that developed in a new era of airport journey to do check in activity it is necessary to support the smart airport. According to CEO PT. Angkasa Pura I (Fahmi, 2018) "Usage of self check-in kiosk not maximal yet due a less education to citizen and passenger especially for below economic level passengers/first flight passengers., some stage in self-check in little bit difficult to understand because: (1) Passenger does not know how to use, (2). A passenger does not some stage e.g. booking code or reference number and (3) cannot choosing seat configuration.

Airport service management PT. Angkasa Pura II keep doing patterned innovation to develop good infrastructure also information technology that supports a service, all the innovation purpose to give a world class service to the passenger, begin from the digitalization of pre-journey of the passenger with self-check in machine procurement. The procurement of self check-in kiosk not yet optimal seen from traffic and long queue in check-in counter or conventional check-in. Based on SITA survey for pre-journey experience, 57% response from passenger choose self check-in kiosk to do a check-in.

M. Awaliduin as a CEO PT. Angkasa Pura II that supervise Soekarno- Hatta International Airport said "For developing self-check in is necessary especially in Soekarno-Hatta International Airport, actually the presence of self check-in kiosk I

feel not happy because this kiosk little less acceptable well by citizen with a reason, not detail and passenger cannot interact with staff airline to ask something about flight information during before flight, in flight and post flight". Also according to Director of a service and facility (Herarindi, 2018) Self Check-In Kiosk in Soekarno-Hatta International Airport still have trouble system and less user, the evaluation is development technology adoption to citizen and passengers did not have a high impact yet.

So, based on the issue an explanation from the above researcher in this research try to describe a factor that influencing technology adoption and acceptable self-check in kiosk from passengers by using UTAUT2 model.

Based on the explanation above, the author would like to conduct a research which is entitled "BEHAVIOR INTENTION OF PASSENGER TO USE SELF-CHECK IN KIOSK (Case Study at Soekarno-Hatta International Airport)".

1.3 Problem Statement

Soekarno-Hatta International airport has a high increasing number of passenger. Airport management has been provided self check-in kiosk but the total of user still limited. So self check-in kiosk still not maximum use yet, how to increase the usage of self check-in kiosk we have to find out factors that influence Behavior Intention of passenger in using self check-in kiosk .

Seen from the problem airport service management PT. Angkasa Pura II need more research about how the passenger can receive, acceptance and understand about self-check in kiosk. This research purpose to knowing the main factor that influence the acceptance and use of self-check in kiosk from the passenger in Soekarno-Hatta International Airport using acceptance and use of integrated technology (UTAUT2).

1.4 Research Question

UTAUT2 proposed by Venkatesh et al. (2012) is a development of the UTAUT, model that use to measure consumer behavior in an individual context. UTAUT2 is the most appropriate model for the basic theory of research about the behavior intention of passengers to use self-check in kiosk. However, based on observation it turns out that there is a slight modification of independent variables in UTAUT 2 evidently have few modification variables independent in UTAUT2. The UTAUT2 model will be used to explore the relationship between the constructs, which includes the performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, trust, habit, and behavioral intention.

According to the explanation above and problem statement that has been submitted, the research question is formulated as follows:

1. Based on passengers perception to use self-check in kiosk in Soekarno-Hatta International Airport, how much is the score of variable in modified UTAUT2 models (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Trust, and Habit) towards Behavioral Intention in the context of self-check in technology adoption in Soekarno-Hatta International Airport ?
2. How much is the score of Behavioral Intention toward passenger to use self check-in kiosk in SOETTA airport?
3. Based on the modified UTAUT2 Model, what are the factor influencing passenger behavioral intention in the context of usage self check-in kiosk in Soekarno-Hatta International?
4. Do the differences in gender and age affect the influence of variables in the UTAUT2 modification model on the Behavioral Intention of passenger in Soekarno-Hatta International Airport in using self check-in kiosk?
5. Does the proposed model in this study can be used to predict Behavioral Intention of passenger in Soekarno-Hatta International Airport in using self check-in kiosk?

1.5 Research Purpose Objectives

Based on formulated research questions that will be researched, so this research purpose to:

1. To analyse passenger assessment on the independent variables (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Trust, and Habit) towards behavioral intention in the context of self-check in machine technology adoption in Soekarno-Hatta International Airport.
2. To analyse the Behavioral Intention of passenger to use self check-in kiosk in Soekarno-Hatta International Airport?
3. To know the variables based on the modified UTAUT2 model that influences Behavioral Intention of passenger in Soekarno-Hatta International Airport in using self-check in kiosk.
4. age and gender differences affect the influence of the modified UTAUT2 model factors toward Behavioral Intention of passenger in Soekarno-Hatta International Airport in using self-check in kiosk.
5. To test whether this proposed UTAUT2 modification model can be used for predicting Behavioral Intention of a passenger in Soekarno-Hatta International Airport in using self-check in kiosk.

1.6 Research Scope

This research about behavior intention of passenger use self-check in kiosk in Soekarno-Hatta International Airport, This research devoted to research the behavior of the user in the usage of self-check in kiosk. This research about behavior intention of passenger use self-check in kiosk in Soekarno-Hatta International Airport. Several limitations set appropriate with a research requirement.

1.6.1 Location and Object of Study

The location of the object study conducted in Soekarno-Hatta International Airport precisely at the terminal 1, 2 and 3.with self-check in users as the object.

1.6.2 Time and Period

The period of this study starts from Novembers 2018 until December 2018

1.7 Significance of the Study

1.7.1 Business Aspect

This research will be important for airport service management, airlines, and passengers. because being able to understand passenger behavior will be a use self-check in kiosk service, help a business player to understanding passengers need, so the result of this research can help a business player or airport service management developing the function of self-check in kiosk and optimizing the usage of self-check in machine or kiosk in the future

1.7.2 Academic Aspect

This research gives information and knowledge about passenger behavior toward usage of self-check in kiosk in Indonesia, especially in Soekarno-Hatta International Airport. Furthermore, this research also gives reference to the next invention for research about self-check in machine adoption.

1.8 Writing Systematic

CHAPTER I: INTRODUCTION

The first part of the research contains the research object overview, research background, problem statement, research question, research objective and research writing systematic.

CHAPTER II: LITERATURE REVIEW

This chapter explains theories, previous researches, framework, hypotheses, and scope of the research.

CHAPTER III: RESEARCH METHODOLOGY

This part tells about the research type, operational variables, research steps, population and sample, data collection, validity and reliability test, and data analysis method.

CHAPTER IV: RESULTS AND DISCUSSION

This chapter contains a chronological and systematically result of the research based on the problem statement and objectives of the research.

CHAPTER V: CLOSING

This las part of the research consists of the conclusion, research limitations, and suggestions of the research.