

# User Experience and Satisfaction Levels of Cebu Pacific Self-Check-in Kiosks at Ninoy Aquino International Airport

Queenie S. Esguerra<sup>1</sup>, Lousse Alfonso Ramirez<sup>2</sup>, Renielle Cielo S. Pealane<sup>3</sup>, Lynnebeth E. Jakosalem<sup>4</sup>, John D. Lusuegro<sup>5</sup>, and Pamela B. Malubay<sup>6</sup>

<sup>1,2,3,4,5,6</sup>School of Tourism and Hospitality, National University Fairview, Quezon City

**Abstract**— The utilization of self-service kiosk for checking in at airports has changed how travelers check in, making it easiest and convenient services compared to the traditional process by going to a Airport travel officer. This study will assess how satisfied the Cebu Pacific Airline guest are when they use these kiosks at Ninoy Aquino International Airport (NAIA). By asking people questions and talking to them, the study aims to find out what makes them happy or unhappy with their experience. The findings show that if the kiosk is easy to use, works fast, and helpful is there when needed, passengers are more likely to be happy with their experience.

**Keywords**— Self-Check-In Kiosk, Passenger Satisfaction, User Experience, Customer Service.

## I. INTRODUCTION

In recent times, the aviation industry has seen big leaps in technology to make traveling smoother and work better. One key step forward is the self-check-in booth, now common and utilize at many big airports, like Ninoy Aquino International Airport (NAIA) in the Philippines. These booths help speed up checking in, cut down wait times, and let travelers handle their trips independently. Even though they're widely used, it's still important to fully assess into how it change the travel experience and make passengers happier. Air traffic congestion has been significantly impacted by the Philippines' ongoing increase in air travel. Major airports attempt to handle this issue while taking into account several factors normally impacting air transportation given restricted resources (Bongo, M. F., & Ocampo, L. A., 2018).

The different service situations in our daily lives that include queuing systems. The performance of the queuing system may be greatly enhanced by the reasonable use of the concept of queues. It is proposed to use the service system, queuing system, and queuing model (Zhu, G., Ivanochko, I., Lehtinen, E., & Klynina, T. 2021), An airport terminal is a device that facilitates passenger check-in and automates a number of routine operations associated with air travel, offering users convenience and relieving pressure on airport staff. Because kiosks are equipped with software that shows information in many languages, most travelers can use them. They make flying easier by allowing self-service flight check-in. Travelers may now spend more time passing through security and reaching their flights by

avoiding the main check-in booths at airports. At kiosks beside airport entrances, travelers may print their boarding cards in advance. Researchers are primarily concerned in evaluating Cebu Pacific passengers' satisfaction levels and user experiences with self-check-in kiosks at NAIA. Recognizing these elements is essential to pinpointing the NAIA kiosk system's advantages and possible areas for development. This research attempts to give a thorough analysis of passenger utilization using self-check-in kiosks and the efficacy of these kiosks in fulfilling customer satisfaction by using a quantitative method, integrating questionnaires in data collecting. The results of this survey will provide an important information for assessing how satisfied passengers in using Cebu Pacific self-check-in kiosks. Additionally, the findings will provide useful suggestions for boosting these technologies' technical performance and usability, which would enhance Cebu Pacific customers' overall travel experiences at NAIA.

### **Statement of the Problem**

The implementation of Cebu Pacific self-check-in kiosks at Ninoy Aquino International Airport (NAIA) is implemented to enhance passenger comfortability and upgrade the airport operational efficiency. To have a comprehensive understanding of these factors is crucial for improving the overall passenger experience and maximizing the efficient use of self-check-in kiosks at NAIA it needs to answer the following question:

- What are the key factors influencing Cebu Pacific passenger satisfaction with self-check-in kiosks at Ninoy Aquino International Airport?

- How do passengers perceive the usability and efficiency of self-check-in kiosks compared to traditional check-in methods?
- What improvements can be made to the Cebu Pacific self-check-in kiosks at Ninoy Aquino International Airport to enhance user experience and satisfaction?

## II. METHODOLOGY

### Research Design

This study will use a quantitative research design to assess Cebu Pacific passenger satisfaction levels and efficiency of self-check-in kiosks at Ninoy Aquino International Airport (NAIA). The target population includes passengers who have used the self-check-in kiosks at NAIA within the day of data gathering.

A structured questionnaire will be developed. It will comprise Likert-scale items to measure various aspects of user experience such as ease of use, speed of service and availability of assistance. The survey will be distributed to purposive sample of 50 passengers in the departure lounges of NAIA. This ensures a diverse representation of demographics and travel purposes. Data collected will be analyzed using descriptive statistics. Inferential statistical techniques will identify key factors influencing satisfaction and areas for potential improvement.

### Research Locale and Respondents of the Study

This research will be place at Ninoy Aquino International Airport, with a special focus on the self-check-in kiosks utilized by passengers of Cebu Pacific. The study will collect data from a sample of 50 participants, all of whom are individuals who have used the self-check-in kiosks at the airport and are customers of Cebu Pacific. The respondents will be chosen by convenience sampling, which will guarantee the representation of a varied variety of travelers. The study will utilize surveys to investigate the user experience and satisfaction levels of individuals, aiming to get insights into the efficacy and areas for enhancement of the self-check-in procedure at one of the most heavily trafficked airports in the Philippines.

### Statistical Treatment of Data

The research would use a Likert scale, with a range of 1 (strongly disagree) to 5 (strongly agree), to assess passenger satisfaction and views of the self-check-in kiosks at Ninoy Aquino International Airport. Descriptive statistics, such as weighted mean, will be employed to provide a concise summary of the responses for each survey topic. Furthermore, inferential statistics, such as correlation analysis, will be utilized to determine the primary elements that impact passenger satisfaction.

## III. RESULT

Table 1. Profile of the Respondents

Respondents Demographic Profile	Frequency (f)	Percentage (%)
<b>Sex</b>		
Male	27	54%
Female	23	46%
<b>Age</b>		
18-24	12	24%
25-34	18	36%
35-44	9	18%
45-54	8	16%
55-above	3	6%
<b>Travel Frequency</b>		
Frequently	2	4%
Occasionally	16	32%
Rarely	32	64%

The table above shows the profile of 50 respondents. In terms of Sex, Male has the higher frequency of 24 with a relative frequency of 54% while female has the lower frequency of 23 with a relative frequency of 46%, while in terms of respondents age 25-34 has the higher

frequency of 18 with a relative frequency of 36%, second 18-24 has the frequency of 12 with a relative frequency of 24%, third is 35-44 has the frequency of 9 with a relative frequency of 18%, Next 45 to 54 has the frequency of 8 with a relative frequency of 16%, and

Lastly 55-above age group has the lowest frequency of 3 with a relative frequency of 6%. In terms of Travel Frequency, rarely travelers has the highest frequency of 32 with a relative frequency of 64%, while Occasionally

travelers has frequency of 16 with a relative frequency of 32%, lastly Frequently travelers has the lowest frequency of 2 with a relative frequency of 4%.

*Table 2. Key factors influencing Cebu Pacific passenger satisfaction with self-check-in kiosks at Ninoy Aquino International Airport*

Survey Item	Weighted Mean	Verbal Interpretation
<b>Section 1: Key Factors Influencing Passenger Satisfaction</b>		
<b>1. The self-check-in kiosks are easy to use.</b>	4.2	Strongly Agree
<b>2. The instructions provided on the self-check-in kiosks are clear and understandable.</b>	4.1	Strongly Agree
<b>3. The self-check-in process is faster than traditional check-in methods.</b>	4.3	Strongly Agree
<b>4. The self-check-in kiosks are conveniently located within the airport.</b>	4.0	Agree
<b>5. The design of the self-check-in kiosks is user-friendly.</b>	3.9	Agree
<b>6. I feel secure using the self-check-in kiosks for my flight check-in.</b>	4.1	Strongly Agree
<b>7. The self-check-in kiosks are regularly maintained and in good working condition.</b>	4.2	Strongly Agree

A weighted mean of 4.3 shows strong agreement that the “self-check-in process is faster than traditional methods”. This efficiency is highly valued by passengers, as it reduces wait times and enhances overall convenience during the airport check-in process. The high weighted mean of 4.2 indicates that passengers strongly agree that “the self-check-in kiosks are easy to use” and “the self-check-in kiosks are regularly maintained and in good working condition”. This suggests that the interface and navigation of the kiosks are intuitive, allowing passengers to complete their check-in process efficiently and with minimal difficulty. Based on the findings of the study of Tyagi, S., & Lodewijks, G. (2022), it indicates that the frequency of travel has an effect on the time it takes for passengers to complete their tasks at self-service kiosks. Furthermore, the utilisation of self-service kiosks affects the time at which passengers arrive at the airport.

While “I feel secure using the self-check-in kiosks for my flight check-in” and “The instructions provided on the self-check-in kiosks are clear and understandable” with a weighted mean of 4.1, with an interpretation of strongly agree. This clarity ensures that passengers can confidently navigate through the check-in steps without confusion, contributing to a positive user experience. In terms of “the self-check-in kiosks are conveniently located within the airport” has the weighted mean of 4.0 indicates agreement that the self-check-in kiosks are conveniently located within the airport. This accessibility ensures that passengers can easily locate

and utilize the kiosks, further improving their check-in experience. One of the airport's key responsibilities is to decrease the duration of passenger processing at check-in counters, luggage drop-off sites, and passport control counters, while also minimizing interpersonal interactions. These advancements are made possible by the introduction of self-service check-in systems for passengers and their luggage, automated boarding procedures, and self-service kiosks for reporting missing baggage. A lack of processing points results in unavoidable delays and the accumulation of people in limited areas (Ivannikova, V., Shenchuk, D., Konovalyuk, V., Borets, I., & Vysotska, I., 2022). Lastly, “The design of the self-check-in kiosks is user-friendly”, While still positive with a weighted mean of 3.9 (agree), This model offers a sufficient degree of precision for our touchless system based on hand gestures, while minimizing any latency or delay that might affect the user's experience. Our suggested system is an advanced and easy-to-use solution that addresses the requirement for contactless interactions and social distance (Babu, A., Rustamov, Z., & Turaev, S., 2023).

An airline self-check-in kiosk is an essential component of non-contact services provided by airlines. The significance of its performance has become even more crucial during and after the Covid-19 period. The study use the principles of the attribution theory to examine the impact of self-check-in kiosk quality on passenger happiness and loyalty (Moon, H. G., Lho, H. L., & Han, .H. (2021)

*Table 3. Usability and Efficiency Compared to Traditional Methods and Suggested Improvements*

Survey Item	Weighted Mean	Verbal Interpretation
<b>Section 2: Usability and Efficiency Compared to Traditional Methods</b>		
<b>8. I find self-check-in kiosks more efficient than traditional check-in counters.</b>	4.4	Strongly Agree
<b>9. The self-check-in kiosks reduce the waiting time compared to traditional check-in methods.</b>	4.3	Strongly Agree
<b>10. I prefer using self-check-in kiosks over traditional check-in methods.</b>	4.2	Strongly Agree
<b>11. The overall efficiency of my check-in process has improved with the use of self-check-in kiosks.</b>	4.3	Strongly Agree
<b>Section 3: Suggested Improvements</b>		
<b>12. Additional assistance (staff support) near the self-check-in kiosks would improve the experience.</b>	3.7	Agree
<b>13. The self-check-in kiosks should offer more language options to accommodate international passengers.</b>	3.9	Agree
<b>14. The interface of the self-check-in kiosks should be more intuitive and user-friendly.</b>	4.0	Agree
<b>15. Regular updates and improvements to the self-check-in kiosks would enhance passenger satisfaction.</b>	4.1	Strongly Agree
<b>16. The self-check-in kiosks should provide additional features (e.g., printing baggage tags, flight updates).</b>	3.7	Agree

“I find self-check-in kiosks more efficient than traditional check-in counters.” with a high weighted mean of 4.4, passengers strongly prefer the efficiency of self-check-in kiosks over traditional check-in counters. This preference highlights the perceived advantages of self-service options in reducing wait times and improving overall check-in efficiency. By employing sophisticated data analysis techniques, travelers are provided with tailored suggestions for destinations, lodgings, and activities, resulting in distinctive and unforgettable experiences. AI-driven chatbots and virtual assistants provide 24/7 assistance, decreasing response times, and enhancing customer service (Antony, P. J., Kannan, R., & Professor, A., 2024). A weighted mean of 4.3 shows strong agreement for “The self-check-in kiosks reduce the waiting time compared to traditional check-in methods” and “The overall efficiency of my check-in process has improved with the use of self-check-in kiosks”.

As stated by Sy, M. A. P. C., Irene, M. G., Malabayoc, F. L. S., Sobrevilla, M. D. M., & Borres, R. D. (2021), they indicated that the use of Kiosk machines resulted in a 54.6% improvement in customer service, as measured by their total perceived satisfaction. Nevertheless, there are more variables that have not been accounted for, which might potentially impact the outcome of the research. To enhance the study, the researchers propose

incorporating other variables such as workforce size, workspace dimensions, and item pricing into the components that impact customers' total perceived pleasure. Lastly in terms of “I prefer using self-check-in kiosks over traditional check-in methods”, with a weighted mean of 4.2, passengers strongly prefer using self-check-in kiosks over traditional check-in methods. This preference underscores the positive impact of self-service technology on passenger satisfaction and operational efficiency.

In Suggested Improvements “Regular updates and improvements to the self-check-in kiosks would enhance passenger satisfaction.” With a weighted mean of 4.1, passengers strongly agree that regular updates and improvements to the self-check-in kiosks would enhance their satisfaction. The study indicates that the self-service check-in service has failed to fulfil the requirements of travelers. The study also discovered that the existing self-service check-in interface lacked assistance for seat changes and clear instructions for different check-in techniques (Yang, T. M., & Zheng, M. C., 2021). Second about the “The interface of the self-check-in kiosks should be more intuitive and user-friendly”, has the weighted mean of 4.0 (agree) indicates that passengers find the current interface of the self-check-in kiosks generally intuitive and user-friendly. However, there is still room for improvement to further

enhance usability and minimize user errors to address the situation, it is recommended to implement a self-check-in kiosk at the present airport for both departure and transit flights. Additionally, a proposal was made for a new environmentally friendly structure that incorporates energy-efficient lighting and comprehensive management of electronics throughout their entire lifespan, from acquisition to disposal. This facility would cater to arriving planes and provide all necessary amenities (AlKheder, S., 2021).

A weighted mean of 3.9 (agree) suggests that passengers would appreciate more language options on the self-check-in kiosks to accommodate international travelers. Multilingual support can enhance accessibility and usability for a diverse passenger demographic. The language with the most diversity in all the data are English. The data are analysed by differentiating between top-down and bottom-up signs, which stand for the airport authority and private parties, respectively, within the context of the language environment. (Wibowo, M. P., & Indrayani, L. M., 2021). Lastly “Additional assistance (staff support) near the self-check-in kiosks would improve the experience” and “The self-check-in kiosks should provide additional features” has a weighted mean of 3.8 (agree), The difficulties that both visitors and employees face emphasise the importance of technical assistance and bridging the divide between technology and interpersonal communication. A comparative analysis highlights the advantages of self-service kiosks in streamlining procedures while recognizing the timeless significance of human connections (Claudine Sykimte. (2023). Users of airport self-check-in kiosks were surveyed, and structural equation modelling was used to analyse the data collected. The results demonstrate that higher predicted values and attitudes towards self-recovery are linked to higher perceived demands for competence, autonomy, and relatedness, which in turn increases self-recovery intention (Chiu, Y. T. H., & Nguyen, D. M., 2022).

#### IV. CONCLUSION

The study's findings reveal a notable degree of contentment among Cebu Pacific travelers who utilize the self-check-in kiosks at Ninoy Aquino International Airport. Passengers overwhelmingly concur that the kiosks are user-friendly, offer explicit instructions, and facilitate a more expedited check-in process in comparison to conventional methods. In addition, the advantageous positioning, intuitive layout, feeling of safety, and consistent upkeep of the kiosks all enhance

the overall user experience. The prevailing inclination for self-check-in as opposed to conventional techniques highlights the perceived effectiveness and ease of these kiosks, which greatly improve the check-in procedure and diminish waiting durations. According to Halpern, N., Mwesiumo, D., Budd, T., Suau-Sanchez, P., & Bråthen, S. (2021), Three discrete categories can be distinguished: those who favour conventional manual procedures, individuals who favour automated technology-driven procedures, and individuals who favour highly customised technology-driven procedures. Notable variations are evident in each category based on passenger and trip attributes, as well as thoughts on how the use of digital technologies at airports affects personal privacy and human dignity. The findings enhance our understanding of passenger preferences at airports and potentially provide valuable insights for airport decision-making. Although the satisfaction ratings are high, the researchers also identify areas that may be improved. Passengers said that their experience might be further improved by providing extra staff assistance, offering a wider range of language options, and creating a more user-friendly interface. Consistent upgrades and maintenance are crucial to ensure that the kiosks operate at their highest level of efficiency and continue to satisfy the changing requirements of passengers. To enhance its self-check-in services, Cebu Pacific can implement these proposals, thereby assuring a smooth and effective experience for all passengers. These findings offer useful insights for airport management to enhance the efficiency of self-service technologies and uphold exceptional levels of passenger satisfaction.

#### V. RECOMMENDATION

According to the findings of the survey, it is advised that Cebu Pacific improves its self-check-in kiosks at Ninoy Aquino International Airport by adding more language choices. This would help cater to international travelers and create a more inclusive and user-friendly experience. In addition, offering more intuitive and user-friendly interfaces can further streamline the check-in procedure, minimizing the likelihood of user mistakes and enhancing overall satisfaction. Positioning staff members in close proximity to the self-check-in kiosks can provide prompt assistance to passengers who may face challenges, thereby merging the advantages of automated check-in with individualized support.

#### REFERENCES

- [1] Bongo, M. F., & Ocampo, L. A. (2018). Exploring critical attributes during air traffic congestion with

- a fuzzy DEMATEL–ANP technique: a case study in Ninoy Aquino International Airport. *Journal of Modern Transportation*, 26(2), 147–161. <https://doi.org/10.1007/s40534-017-0150-x>
- [2] Zhu, G., Ivanochko, I., Lehtinen, E., & Klynina, T. (2021). Mathematical model for the optimization of the airport self-service kiosks system. In *CEUR Workshop Proceedings* (Vol. 3003, pp. 132–140). CEUR-WS.
- [3] Tyagi, S., & Lodewijks, G. (2022). The Impact of Passenger Characteristics on Use of Self-Service Technologies for Check-In Process: A Case Study of Sydney Airport. *Journal of Aviation Technology and Engineering*, 11(2), 2. <https://doi.org/10.7771/2159-6670.1259>
- [4] Babu, A., Rustamov, Z., & Turaev, S. (2023). INTELLIGENT TOUCHLESS SYSTEM BASED ON GESTURE RECOGNITION. *Journal of Theoretical and Applied Information Technology*, 101(10), 3936–3942.
- [5] Antony, P. J., Kannan, R., & Professor, A. (2024). Revolutionizing the Tourism Industry through Artificial Intelligence: A Comprehensive Review of AI Integration, Impact on Customer Experience, Operational Efficiency, and Future Trends. [www.chandigarhphilosophers.com](http://www.chandigarhphilosophers.com) *International Journal for Multidimensional Research Perspectives (IJMRP)* (Vol. ISSN, pp. 2584–2613). Retrieved from [www.chandigarhphilosophers.com](http://www.chandigarhphilosophers.com)
- [6] Moon, H. G., Lho, H. L., & Han, H. (2021). Self-check-in kiosk quality and airline non-contact service maximization: how to win air traveler satisfaction and loyalty in the post-pandemic world? *Journal of Travel and Tourism Marketing*, 38(4), 383–398. <https://doi.org/10.1080/10548408.2021.1921096>
- [7] Yang, T. M., & Zheng, M. C. (2021). Usability of the Self-check-In Kiosk in Airports Based on Users' Behavior Mapping. In *Lecture Notes in Networks and Systems* (Vol. 275, pp. 994–1001). Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-030-80091-8\\_118](https://doi.org/10.1007/978-3-030-80091-8_118)
- [8] AlKheder, S. (2021). Passengers intentions towards self-services check-in, Kuwait airport as a case study. *Technological Forecasting and Social Change*, 169. <https://doi.org/10.1016/j.techfore.2021.120864>
- [9] Claudine Sykimte. (2023). Evaluating Self-Service Kiosks in Hotel Check-in Processes. *International Journal of Advanced Research in Science, Communication and Technology*, 688–692. <https://doi.org/10.48175/ijarsct-12356>
- [10] Halpern, N., Mwesiumo, D., Budd, T., Suau-Sanchez, P., & Bråthen, S. (2021). Segmentation of passenger preferences for using digital technologies at airports in Norway. *Journal of Air Transport Management*, 91. <https://doi.org/10.1016/j.jairtraman.2020.102005>