

## **Optimizing the User Experience of the Philippine eTravel System**

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### **Abstract**

This study aims to explore the Philippine eTravel System from the users' perspective. The PH eTravel System is an electronic platform that is supposed to help international passengers expedite their travel processes. The authors employed Design Thinking (DT) - an approach that is iterative and centered on humans in solving problems by understanding their needs, creating ideas innovatively, and testing them to arrive at meaningful and effective results. This work was carried through following the various stages of the DT process namely, empathize, define, ideate, prototype, and test. Results of data analysis revealed that the users encounter difficulties such as complicated registration procedure, malfunctions of the system, and accessibility issues specifically with individuals who are not so well versed in technology. At the end of this paper, the authors suggest innovations towards making the travel system more inclusive and user-friendly. Recommendations focused on technical and administrative aspects particularly the improvement of the interface, multilingual options, availability of steady connection within airports, and different paper-based forms for special cases.

Keywords: Digitalization, Governance, Design Thinking, eTravel System.

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## **INTRODUCTION**

The Philippine government through the National Tourism Development Plan (NTDP) 2023-2028 seeks to transform the country into a tourism powerhouse in Asia (Department of Tourism, 2023), and the airport being the gateway for tourists plays a very critical role in achieving this dream.

Ironically, Philippine airports are infamous for outdated infrastructure, airline delays, overcrowding, and excessively long passenger lines. According to an Australian firm's survey, the Ninoy Aquino International Airport (NAIA), the country's largest airport, has repeatedly been named as the world's worst airport (Rosales, 2024).

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In an attempt to improve the experience of passengers traveling to the Philippines, the Philippine government is exploring various methods and solutions, including a shift to Public-Private Partnership (PPP) and digital governance for airport management and operations. The Department of Information and Communications Technology (DICT), Bureau of Immigration (BI), Department of Transportation (DOTr), Bureau of Quarantine (BOQ), and Bureau of Customs (BOC) have launched an integrated digital platform known as the **Electronic Travel Information (eTravel) System** on December 5, 2022 to streamline various travel declaration procedures for international inbound travelers. On April 15, 2023, the eTravel System was expanded to encompass all foreign inbound and outbound passengers, as well as crew members arriving in and departing the Philippines (Flores, 2024).

The eTravel System (<https://etravel.gov.ph>) is a digital platform that collects information about travelers entering and exiting the Philippines. It will be used to analyze economic data; manage border control and immigration clearance; and monitor public health (eTravel, n.d.). It converts the paper-based Customs, Immigration, and Quarantine (CIQ) forms into an integrated digital platform, accessible via a mobile application or website. This allows the government and its agencies to consolidate data collection, streamline the admission procedure, and manage immigration promptly and effectively.

Despite the digital platform's promise to improve efficiency and effectiveness in the traveler experience, travelers arriving and departing in the country complain that the new system has become a tedious, confusing, and time-consuming requirement, particularly for those who are technologically-challenged. This could be due to the fact that the eTravel System is still in its early stages and therefore lacks the system and process modifications required to accommodate all types of travelers. In addition to this, airports in the Philippines lack high-speed internet connection making it more challenging for passengers to sign up for the online platform in order to create a 'New Travel Declaration'.

Given these challenges, there is a need to further evaluate the eTravel System on its objectives in order to fully maximize its potential. This leads us to the research problem:

**"How do we make the PH eTravel System more accessible and user-friendly?"**

To address the research problem, this paper investigates the user-centricity of the eTravel portal (website) and the ways in which it can be remodeled to accommodate travelers

with varying knowledge levels in using technology using a contemporary design discipline called Design Thinking (DT).

This methodology was chosen for this research study because of its iterative and non-linear problem-solving approach, which would result in solutions that are centered on and empathize with user experiences. Design Thinking is notable for its five-step process, which includes (a) empathizing, (b) defining, (c) ideating, (d) prototyping, and (e) testing (Plattner, 2019). Because it is not a rigid method to design, the steps can be switched, carried out concurrently, or done numerous times to acquire the most informative insights about the users, broaden the solution space, and focus on more innovative ideas.

Using this methodology, this paper aims to achieve the following research objectives:

1. To enhance the inclusivity, accessibility, and usability of the eTravel System for all kinds of travelers, such as foreign nationals, non-native English speakers (e.g., Chinese, Koreans), tourists/pleasure travelers (short-stay), first-time visitors to the Philippines, travelers in family/groups, and corporate travelers. This includes digitally-challenged and differently-abled individuals and groups, and the senior travelers;
2. To contribute to the objectives of the national government to a fuller and more successful operationalization of the eTravel System. These objectives are to: (a) provide an efficient government service delivery; (b) strengthen border security; and (c) improve data processing for tourism-related economic analysis through the development of a user-friendly and intuitive eTravel portal; and,
3. To provide practical recommendations that future researchers and eTravel System evaluators can use as valuable references in further enhancing the system. These recommendations may address the following areas:
  - a. User Focus: The primary focus is on the user experience and inclusivity, specifically the travelers with diverse needs, capabilities, and language preferences using the human-centered methodology of Design Thinking.
  - b. Ease of Doing Business: The creation of a simple, seamless, and intuitive navigation interface for the eTravel portal.
  - c. Achievement of Government Goals: Efficient service delivery, improved data collection for border control, and Tourism-related insights through digital governance.

- d. Evidence-Based Approach: The research methodology will utilize Thematic Analysis to identify key user needs and challenges, leading to the development of evidence-based recommendations for system improvements.
- e. Development of Prototype: Provide an upgraded system prototype that addresses the research question.

## LITERATURE REVIEW

The Coronavirus pandemic accelerated the public sector's transition to digitalization in providing fundamental public services to its citizens. In travel and tourism, governments around the globe have been developing and adopting digital platforms to replace paper-based forms and manual procedures in streamlining the travel requirement process.

Pioneering such technological advancements was expected for first-world countries given their comprehensive wealth. In the United States of America (USA), a facial biometrics recording system known as **Simplified Arrival** is being implemented into the entry and exit processes at all international airports (Biometrics, n.d.). European Countries such as the United Kingdom (UK) no longer require physical landing cards, and instead introduced electronic passport gates (ePassport gates) as part of their digital border transformation and modernization. The ePassport gates employ facial recognition technology to authenticate a traveler's identification by comparing it with the information contained in their biometric passport, while simultaneously cross-referencing multiple databases to assess any potential security threats posed by each traveler (Alternative Airlines, n.d.). Meanwhile, other countries especially in the Asian regions simply transition to electronic versions of their immigration cards (arrival and departure), and health and customs declaration forms.

In 2018, India's Ministry of Civil Aviation launched the **DigiYatra Platform** to smoothly process the entry and exit of passengers at entry checkpoints, security checks, airplane boarding, self-bag drop, and check-in using facial recognition technology (Digi Yatra- a New Digital Experience for Air Travellers, National Portal of India, n.d.). However, passengers were complaining that security personnel and aviation staff at the airport entry gates were collecting information (e.g., capturing photos) and enrolling passengers in the digital application without their informed consent (Chandra, 2024). Even with the trailblazer in South East Asia, Singapore's **MyICA**, a mobile application for a one-stop platform to access all of the country's

Immigration and Checkpoint Authority (ICA)'s e-Services on-the-go still encounters shortcomings. Users have noticed the following concerns: (a) the application must be completed no later than three days before arrival in Singapore, which requires careful time planning taking into account time zones; (b) taking time to answer health policies on the form; and finally, (c) because MyICA is a mobile application, it is only available to people with smartphones with stable internet connectivity (*Siregar, Runturambi, Riyanta, 2024*).

Philippine President Marcos, in his 2024 State of the Nation Address (SONA), took pride when he announced that air transport and tourism have now shifted to paperless immigration and customs forms through the implementation of the **eTravel System** (SONA, 2024). A digital platform that replaces the paper-based immigration forms, one-health pass, and customs declaration.

Unfortunately, this system overlooks several issues, making travel procedures more difficult and time-consuming for each departing or arriving passenger. These issues include: (a) the lag and inconsistent interface of the mobile application or "app"; (b) the technical challenges faced by citizens (such as elderly or soon-to-be seniors) when navigating the app; (c) the inattention of passengers on the need to complete this requirement before the scheduled departure time; (d) the eTravel form's excessive number of questions; and (e) the existence of fraudulent eTravel websites that scam travelers and charge passenger registration fees (Gonzales, 2024). Furthermore, Administrative Order No. 24 "Institutionalizing the use of the Electronic Travel Information System for International Inbound and Outbound Passengers and Crew Members" still awaits its implementing rules and regulations, which could be a factor in the lack of unaddressed operational issues of the system.

Resolving the eTravel system issues of the aforementioned countries will make the transition to digitalization worth the financial resources, time allocations, collaborative partnerships, and technological investments made. By making travel in the Philippines more convenient for both Filipino and foreign travelers, we can reap the following benefits: (a) reduced congestion in immigration clearing areas; (b) fewer travel and data privacy-related complaints from arriving and departing passengers; and (c) increased number of inbound and outbound travel in the country. This will improve the travel experiences of our target communities, which include government employees, businessmen, students, OFWs, PWDs, senior citizens, foreigners/tourists, and family tourists.

There are currently no published extensive research studies or impact assessments that describe the PH eTravel System in full. As such, this research report is the first exploratory study that can provide a broad overview of the problem.

## RESEARCH METHOD

### Design Thinking as a Methodology

The researchers applied the Five (5) Step Design Thinking Process as their methodology. The Design Thinking (DT) methodology places people at the center of every activity, emphasizing the significance of empathizing with the target stakeholders in order to build solutions that meet their needs (Plattner, 2019).

The first stage of Design Thinking is the **empathize stage**, which focuses on learning and comprehending the product/service users' needs. During this stage, the researchers used a semi-structured interview as a qualitative study approach to gather information from twelve (12) travelers in the Philippines with diverse backgrounds.

The next stage of DT is the **define stage**, which entails organizing the data gathered by the researchers during the empathize stage. In this step, they evaluated their observations and data collected from their key participants in order to simplify data, develop linkages, and ultimately, define the working problem of the eTravel system.

This is followed by the **ideate stage**, in which researchers attempt to challenge preconceptions, brainstorm situations, and list new, human-centered, and imperfect solutions to the PH eTravel System's challenges.

Next is the **prototype stage**, during which the researchers sought to imagine (and ideally, create) the eTravel System Portal (Website) with their proposed features. This is also where they explored and investigated the major solutions brainstormed during the ideation phase to see which ones were most appropriate to the prototype.

Finally, the fifth stage of DT is the **test stage**, in which the researchers present their prototype to the eTravel system's target audience and collect initial feedback. This will serve as the foundation for another prototype that they will create, incorporating the features suggested during the initial feedback session with the users.

### Profile of Interviewees

The first stage of Design Thinking is the **empathize stage**, which focuses on knowing and understanding the users' needs.

In this stage, the research group utilized a semi-structured face-to-face interview as a qualitative research method to collect information from twelve (12) international travelers in the Philippines with varying profiles provided in Table 1. These travelers are government employees from Subic Bay Metropolitan Authority (SBMA), Bataan General Hospital and Medical Center (BGHMC), and Presidential Communications Office (PCO), as well as passengers at the Clark International Airport (CRK).

**Table 1. Interviewee Profile**

PSEUDONYM	SEX	AGE BRACKET	BACKGROUND
Interviewee 1	Female	30-39 years old	Foreign Tourist (1st time eTravel user)
Interviewee 2	Female	40-49 years old	Foreign Tourist (1st time eTravel user)
Interviewee 3	Male	40-49 years old	Overseas Filipino Worker (OFW)
Interviewee 4	Male	40-49 years old	Overseas Filipino Worker (OFW)
Interviewee 5	Female	30-39 years old	Airline Crew Member
Interviewee 6	Female	20-29 years old	Tourist
Interviewee 7	Female	40-49 years old	Tourist
Interviewee 8	Female	30-39 years old	Overseas Filipino Worker (OFW)
Interviewee 9	Female	40-49 years old	Government Employee (Official Travel)
Interviewee 10	Male	20-29 years old	Government Employee (Official Travel)
Interviewee 11	Female	20-29 years old	Frequent Traveler (Official/Tour)
Interviewee 12	Male	30-39 years old	Airline Crew Member

### Interviews

The researchers prepared three (3) open-ended questions to elicit responses from interviewees that disclose perspectives, experiences, narratives, or stories. This is an important step before conducting interviews since it helps identify initial themes or topics that the researchers can investigate further.

The following questions and their corresponding objectives are in Table 2 below:

**Table 2. Interview Questions and Objectives**

<b>QUESTIONS</b>	<b>OBJECTIVE</b>
How was your experience in creating an account/signing up for the eTravel System? Please explain in detail.	To gauge user acceptance and perceived necessity of the system.
Did you encounter any problems when filling out the questions in the Philippine eTravel System?	To probe for specific challenges users faced while using the system.
Was there any difference in your airport operations experience after using the Philippine eTravel System?	To allow interviewees to provide specific recommendations for system enhancements.

The researchers conducted a face-to-face interview with target participants in accordance with established research standards. This includes getting a visitor's authorization from the Clark International Airport Corporation (CIAC) and assuring the data confidentiality of interviewees through informed consent prior to the interview. This consent covers the interviewee's right to ask questions, withdraw from the interview, withdraw any information shared during the interview, and understand the researcher's right to take notes, record, and transcript information shared by the interviewees.

The researchers interviewed people at Clark International Airport (CRK) between 3:00 PM and 7:00 PM. They initially aimed for a non-probability purposive sampling with a target to interview five (5) respondents from the international departures area and five (5) respondents from the international arrivals area. For the international departures area interviews, the researchers planned to have the following respondent profile: two (2) Overseas Filipino Workers, one (1) Filipino who was a permanent resident abroad, one (1) non-immigrant visa holder, and one (1) flight crew member. Meanwhile for the international arrivals area interviews, the researchers intended to land the following respondent profile: two (2) foreign tourists, two (2) foreign nationals who are holders of permanent resident visas in the Philippines, and one (1) diplomat/VIP. The maximum variation sampling was set with the objective of broadening the viewpoints, experiences, narratives, and stories that can be elicited from interviewees.

Unfortunately, given the uncontrolled variables, such as passenger traffic, as well as the scheduled inbound and outbound international flights from 3:00 PM to 7:00 PM, the target respondent profiles proved difficult to achieve. Furthermore, it was a challenge to obtain an



accurate profile of passengers without making small talk while they are preoccupied in catching their respective flights.

After numerous unsuccessful attempts at targeted interviews, the researchers decided to pivot to a non-probability convenience sampling of respondents, who were accessible to participate, regardless of their travel profile.

In order to validate and enrich the findings, as well as to make them more representative of the current state of the eTravel System, the researchers also conducted one-on-one interviews with qualified and consenting travelers from the Subic Bay Metropolitan Authority (SBMA), Bataan General Hospital and Medical Center (BGHMC), and the Presidential Communications Office (PCO).

### **Data Processing and Analysis**

Once the interview data were gathered, the researchers proceeded to the **define stage** where they conducted data processing and analysis. The researchers transcribed all the interview recordings. The transcriptions were the basis for quotes from interviewees, as well as for the assigned codes that will represent specific or similar ideas, concepts, opinions, insights, experiences, and stories.

Once the codes were prepared, the researchers sought patterns, and recurring codes, and grouped similar codes to produce sub-themes and themes. Throughout this process, they were able to identify three main themes, which were addressing issues related to the: (1) sign-up experience; (2) negative public impression; and (3) technical support.

Under the first theme of addressing issues related to the sign-up experience, there arose three (3) sub-themes: (1.1) inefficient information dissemination; (1.2) demanding registration requirement; and (1.3) digital abilities gap.

Meanwhile, under the second theme of negative public impression, two sub-themes materialized: (2.1) administrative concerns; and (2.2) recognition of special cases, which necessitated the retention of an option to complete the arrival and departure cards on paper.

Finally, under the third theme of technical support, there emerged three (3) sub-themes: (3.1) internet availability; (3.2) airport personnel assistance; and (3.3) system defect.

The researchers incorporated these codes, themes, and sub-themes into a mind map in order to visualize the information that they have gathered from their qualitative thematic analysis.

### **Limitations of the Data Gathering, Processing and Analysis**

The researchers acknowledge that there are limitations to their chosen methods to gather, process, and analyze data. Future researchers of this topic must address or overcome these limitations to generate more accurate findings and recommendations:

1. **Sample Size and Representativeness:** The study only had twelve (12) respondents. A broader and more diversified sample, including various demographics, travel frequencies, and technological skill levels would provide a more complete picture of user needs.
2. **Potential Biases:** The study relied on self-reported experiences, which are prone to recall bias and social desirability bias. Techniques such as user observation or A/B testing may provide a more objective viewpoint.
3. **Focus on Specific User Groups:** The study targeted four (4) user groups: Overseas Filipino Workers (OFWs), flight crew, tourists, and government officials. Future research could look into the special needs of other user groups, such as senior travelers, digitally-challenged, differently-abled individuals, corporate travelers, and/or travelers with limited English fluency.
4. **Technical Considerations:** The analysis did not get into the technical features of the eTravel System itself. Future research could investigate potential enhancements to the system's usability, accessibility, and performance.
5. **Longitudinal Research:** This study provided a snapshot of user experiences at a certain point in time. Longitudinal research, which tracks users over time, could reveal changes in user perception and behavior as the system evolves.

## RESULTS AND DISCUSSION

Table 3 below is a detailed discussion of the themes and sub-themes that have emerged from the data analysis.

**Table 3. Discussion of Themes and Sub-Themes**

THEMES	SUB-THEMES
<b>1 Addressing Issues Related to Sign-up Experience</b>	<p><b>1.1 Inefficient Information Dissemination</b> - Significant distress was experienced by most of the interviewed travelers due to low public awareness of unexpected travel requirements for the Philippine eTravel System. The lack of readily accessible and clearly communicated information led to confusion, delays, and added pressure in an already stressful travel scenario. It highlighted the need for efficient information dissemination efforts by the Philippine government to ensure the smooth travel experience of travelers.</p> <p>When asked about the time they have learned about the eTravel Requirement, a foreign tourist responded that they were already at the airport in Cebu. <i>"No, we weren't lined up. We just walked in and saw the code [eTravel QR code] before we got in. It was just kind of like a shock... So we were kind of annoyed..."</i></p>
	<p><b>1.2 Demanding Registration Requirement</b> - Most travelers saw the requirements of creating an account to be demanding as it entailed the need for a personal email account, a mobile number under a Philippine account, and included numerous questions that are sometimes confusing and time-consuming. This led to a comparison with the travel information systems that the other countries are also currently implementing.</p> <p>When asked if they have encountered any problems when filling out the questions in the eTravel System, a Government Employee opined that the form was too long with unclear instructions. <i>"Siguro ano, mas iksian lang nila, ang daming tanong. As andami din kailangan sagutan. May hindi malinaw na ganun dapat gawin."</i> [Maybe they should just shorten it, there are too many questions. There's a lot to answer. Some things aren't clear, like what exactly needs to be done.]</p>
	<p><b>1.3 Digital Abilities Gap</b>- Since the eTravel System is a digital innovation, some interviewed travelers, especially those from the older generation who were not well-versed with technology tended to have difficulty in navigating the system. This was the same dilemma among travelers with varying physical and literacy limitations. With the digital divide, the need for inclusivity by accommodating all kinds of users in designing or implementing the eTravel System has emerged. When asked if they have encountered any problems when filling out the questions in the eTravel System, an Overseas Filipino Worker (OFW) respondent suggested that educational attainment level and basic literacy skills must be taken into consideration. <i>"Yung kasing iba hindi nakapagtapos... hindi nakapag-aral... yun kasing iba meron na 'no-read, no write', baka hindi nila naiintindihan yung pinirmahan nila."</i> [Maybe that's the case, some of them didn't finish their education or didn't have the opportunity to study. Some of them can't even read or write. Perhaps they didn't fully understand what they were signing.]</p>

	<p>Meanwhile, when asked if they had any recommendations to improve the eTravel System, an Airline Crew Member noticed that there were different levels of tech know-how that have to be accommodated. <i>"So dapat dalawa... may option ka na merong papel, pwede syang magsulat, at yung mga tao na like yung mga younger generations na tech savvy, siguro yung mga matatanda na konti na kaya nila mag-navigate dun sa kanilang app na ginawa ni government</i> [So, there should be two options: one for people who prefer paper and can write manually, and another for the younger, more tech-savvy generations. For the elderly, perhaps only a few of them would be able to navigate the app developed by the government]</p>
<b>2 Negative Public Impression</b>	<p><b>2.1 Administrative Concerns</b> - The eTravel System was perceived by most travelers as a technological innovation by the government, but doubted the system's sustainability and the government's consistent regulation. There was a reluctance to follow the government because of preconceived ideas about the inconsistencies in the implementation of the eTravel regulations.</p> <p>When asked if they had any recommendations to improve the eTravel System in this regard, an Overseas Filipino Worker (OFW) noted that the airport systems and processes were consistently in a state of flux. <i>"Sana lang magtagal [eTravel Sytem]. Kasi minsan yung mga sytems naten. Ano lang e, within one year, pag ano mo na next year iba na nman.. Iba na nman yung apps na gagamitin."</i> [I just hope the eTravel system lasts. Because sometimes, with our systems, it's like this—after a year, once you use it, the next year, it's completely different... The app you use changes again.]</p>
	<p><b>2.2 Recognition of Special Cases</b> - One of the reasons why the public perceived the government as being exclusive and rigid was the lack of alternative modes for accomplishing travel information. The provisions on other options for special cases were suggested by the interviewees.</p> <p>When asked if they had any recommendations to improve the eTravel System, an Airline Crew member reiterated that there was a need to be inclusive so as not to disenfranchise any sector of society.</p> <p><i>"Para sa amin yung pinakamaganda, dalawa... para sa normal passenger, dalawa sya, dalawang way, either pwede kang magsulat ng manual, pwede ka mag on-line..."</i> [For us, the best option would be two choices... for the regular passengers, there should be two options: either you can write manually, or you can go online.]</p> <p>Another respondent emphasized that people must be empowered to choose which option they were more comfortable with. <i>"Syempre mas okay sa akin iyon. Kasi unang una, iyong sulat naiintindihan ko. Samantalang ako bobo ako sa cellphone, hindi naman lahat magaling sa cellphone, o paano yun. Papel, yeah! Oo pwede mga bata kasi mabilis sila, odi dun sila sa digital. O tapos ako, hindi ko alam, edi dito ako pipila sa paper."</i> [Of course, that works better for me. Because first of all, I understand what I write. On the other hand, I'm not good with cellphones— not everyone is skilled with them. So what about that? Paper, yeah! The kids can handle the digital one because they're fast with it. As for me, I don't know how, so I'll just line up for the paper option.]</p>

<b>3 Technical Support</b>	<p><b>3.1 Internet Availability</b> - Since accessing the eTravel System relied heavily on an Internet connection, all international airports in the Philippines must have the capacity to provide free and reliable Wi-Fi connections to their travelers for accessibility.</p> <p>When asked if they can accomplish the eTravel system without the free internet connection at the airport, a Foreign Tourist expressed the need for a stable Internet connection with sufficient bandwidth to handle the web traffic at busy airports.</p> <p><i>"If there's no free Wi-Fi, I wouldn't have been able to do that. Only that the Wi-Fi wasn't working that well, so then I had to refresh it."</i></p>
	<p><b>3.2 Airport Personnel Assistance</b> - The personnel assistance and technical support provided to travelers with difficulty in registering or accessing the eTravel System proved to be a critical concern, since as noted earlier there was a digital abilities gap among travelers. Fortunately, the positive experiences reported by the interviewees were about the personal assistance provided by the airport personnel. <i>"But it was good that there was a guy standing next to the sign before you went to the Immigration line, making sure that you knew you had to do that... They let people know you're going to do this first, then come get in line."</i> Another respondent expressed gratitude for the presence of attentive airport staff to assist when necessary. <i>"I'm sure it's fine. I'm sure because there were also people [airport staff] there that could like help you too. So those people that were there..."</i></p>
	<p><b>3.3 System Defect</b> - Due to the experience of system lag and glitches while using the eTravel System, a system audit and feedback mechanism were recommended by the interviewees. They noted that to effectively implement and improve the eTravel System, a system evaluation involving a quality audit and input from travelers should be done periodically.</p> <p>When asked if they have encountered any problems with the eTravel System, an Airline Crew Member opined that it seemed like it was merely a perfunctory implementation for compliance that lacked any preliminary research, feedback mechanism, performance evaluation, and recalibration process.</p> <p><i>"May problema yung sistema... hindi pinag aralan... nag feedback lang sila sa kanila kanila lang rin... dapat kasi paulit ulit na feedback... dapat open sila for feedback... dapat diligent sila basahin yun... kasi, hanggang maperfect nila yun, ma fine tune nila..."</i> [The system has a problem... it wasn't well-studied... they only gave feedback among themselves... feedback should be continuous... they should be open to feedback... they should be diligent in reading it... because they need to perfect it, to fine-tune it...]</p>

### Interconnections of the Themes

The themes described above were interconnected and influenced each another.

1. **Sign-up Experience and Negative Public Perception:** A poor sign-up experience greatly contributed to negative public opinion, especially when users met inefficiencies

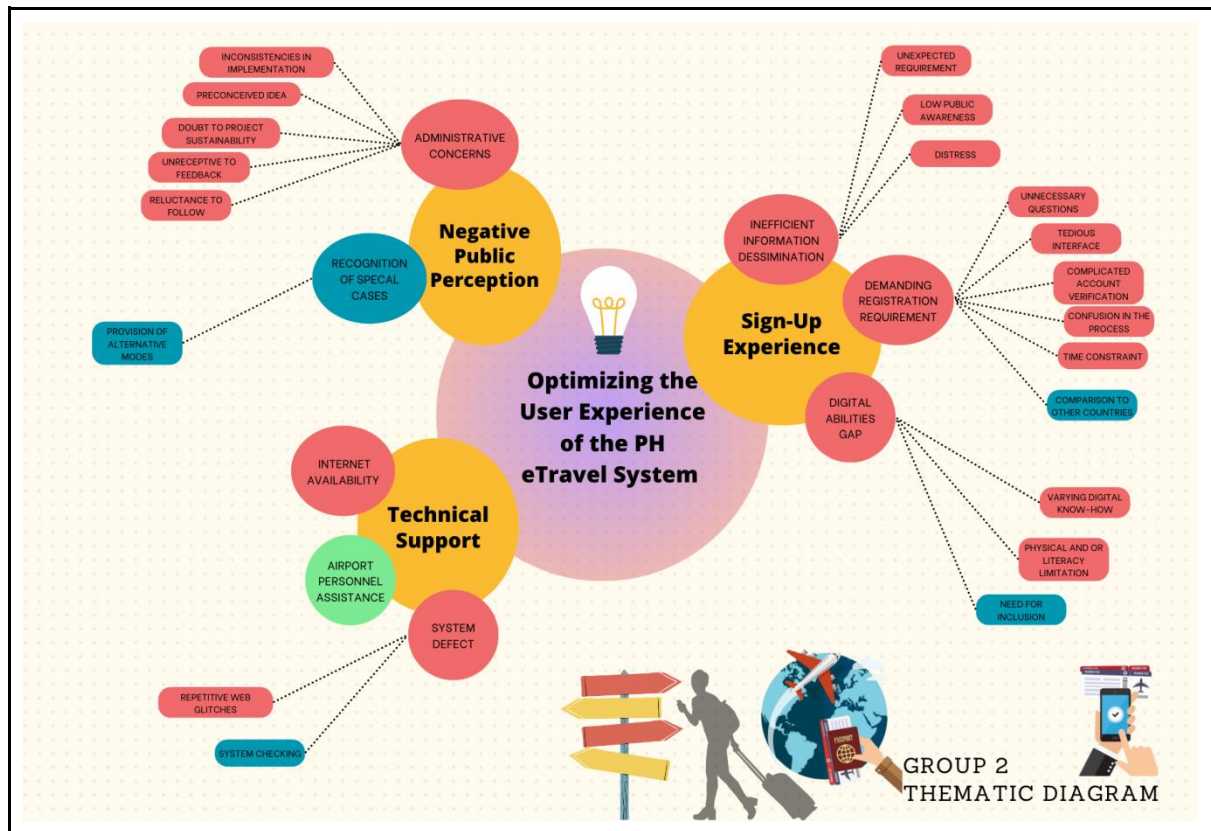
or confusing instructions. For example, when travelers were not well-informed about the eTravel System's requirements, they have faced extra delays and annoyances. Complicated registration forms, numerous questions, or confusing directions have all contributed to confusion and a sense of overwhelm, thus reinforced the impression that the system was not user-friendly. Furthermore, the digital gap has negatively impacted specific demographics, such as the elderly or people who were unfamiliar with cellphones and computers. This exclusion may have generated a sense of unfairness, with users having viewed the eTravel system as a burden rather than a useful tool, thereby having ruined its public image.

2. **Negative Public Perception and Technical Support:** The perception of inadequate technical support also had substantial impact on public sentiment. When users encountered technological difficulties yet are unable to receive timely and effective assistance, their trust in the system may be compromised. The lack of a reliable helpdesk might cause worry and the perception that the system was not well-maintained. Conversely, readily available and quick technical support can minimize unfavorable perceptions and create trust, thereby improving the overall travel experience.

Overall, to address the research problem: ***“How to make the eTravel System more accessible and user-friendly?”***, it is crucial to address these interrelated issues. Simplifying the sign-up process, providing clear and accessible information, and ensuring the availability of responsive technical support can all contribute to a more user-friendly, inclusive, and positive experience with the eTravel System.

### **Thematic Diagram and Proposed Solutions**

The researchers arranged the codes, sub-themes, and themes into a thematic diagram as part of the third stage of Design Thinking called **ideate stage**. This visualization process made it easier to see the interconnections, similarities, and gaps among ideas, and thereby, brainstorm and generate recommendations in the form of solutions and a new product design that addresses the research problem.

**Figure 1. Mind-Map of Codes, Sub-Themes, and Themes**


From the thematic analysis in Figure 1, the researchers formulated two types of recommendations: (1) Technical Aspect: to improve the eTravel website interface and functions, and (2) Administrative Aspect: to improve factors that delay or hinder a traveler's positive travel experience. These are summarized in table 4 below:

**Table 4. Proposed Solutions for the Philippine eTravel website**

<b>TECHNICAL ASPECT (FOR THE WEBSITE)</b>	
<b><u>eTravel Registration/Portal Modifications:</u></b>	
1.	Direct access to the eTravel portal
-	Eliminate the mandatory "create account" registration
2.	Optional upon user's convenience
-	"create account" via the eGovPH application
-	separated from the "direct access" user interface
3.	User Interface modification on visual design and typography
<b><u>Main eTravel User Interface Modifications:</u></b>	
1.	Integration of a "Step/Status Bar"
-	Located on top of every page for guided navigation
-	Step 1 - Traveler Information
-	Step 2 - Travel Information

- Step 3 - Customs Declaration
- Step 4 - Review and Summary
- Step 5 - Confirmation and Feedback
- 2. Simplified list of required traveler information
  - Date of Arrival : (3 dates are a readily available option - covering the "72hr requirement")
  - Personal Information : (per passport biographical data page information)
  - User interface modification on the "drop-down tab" selection
- 3. Simplified list of required travel information
  - Eliminated all fields on "transit passenger" information
  - User interface modification on the "drop-down tab" selection
- 4. Simplified list of required health information
  - Eliminate COVID requirement provisions (insignificant)
  - Eliminate multiple checklists of occurring illness symptoms (insignificant and confusing)
  - Brief and direct yes/no questions (relevant "quick-check" health information)
- 5. Simplified customs declaration
  - Eliminate lengthy legal provisions. Retain: catch-all provision on "Warning on Offences, Forfeiture, and Imposition of Penalties"
  - Integration of a clickable weblink directing to Customs portal [www.customs.gov.ph](http://www.customs.gov.ph) (optional to users who opt to navigate further laws and regulations concerning the declaration of goods)
  - Retain the General Declaration list
- 6. Retain: Add Family Member/Traveler Option
- 7. Retain: Review and Summary Page (prior to submission)
- 8. Retain: Confirmation Page - QR Code Generation
- 9. Integration of a brief User Feedback Pop-up using a 5-star rating (as an immediate feedback mechanism) and comment section for further concerns.
- 10. After the prototype testing: Language options (English, Filipino (Tagalog), Chinese (Mandarin), Japanese (Nihongo), Korean (Hangul))

**Table 5. Non-Website Proposed Solutions for the Philippine eTravel System**

<b>ADMINISTRATIVE ASPECT</b>	
<b>1. Partnership with Stakeholders for Targeted Information Dissemination</b>	As identified in our themes, the launching of the <b>eTravel</b> ( <i>Philippine One-Stop <b>Electronic Travel</b> Declaration System</i> ) to replace the paper-based Immigration Arrival Card (Bureau of Immigration), One Health Pass (Bureau of Quarantine), and Customs Declaration Form (Bureau of Customs) was perceived as a welcome improvement by most travelers; the problem was rooted in their lack of knowledge thereof. A targeted information dissemination for existing and prospective travelers should be made by engaging concerned stakeholders from different government agencies and private institutions. This includes- but not limited to- a video promotion from the Department of Information and Communications Technology (DICT) aired on television and posted on social media sites, a text blast from the National Telecommunication Commission (NTC), a pop-up advertisement when securing a ticket on Airlines and Ticketing Sites, and information caravan in OFW Agencies. The utilization of possible social media partnerships would be highly recommended to reach a targeted audience through pop-up advertisements and boosts.
<b>2. Improve Airport Internet Connection</b>	Since accessing the eTravel System relied heavily on an Internet connection, all airports must have the capacity to provide free and stable Wi-Fi connection to their travelers for accessibility.



### **3. Proactive Airport and Airline Personnel Assistance to Travelers**

As identified in our themes, there was a digital abilities gap among travelers, so there is a need for airport personnel to personally assist travelers with difficulty registering/accessing the eTravel System.

A noticeable impact on the privatization of airports was the “divided airport operations”. This widened the gap between the different sectors operating the airports (private vs public; the income generation sector vs the regulatory and national security sector or the government). Instead of a “one airport operations” concept, each institution was managed in separate silos. The implementation of eTravel has mainly shifted the weight of responsibility to the public sector actors in the airport, this somehow gave the private sector (such as the airline companies) a “hands-off” mindset in the implementation of the government portal.

To visualize, the airline staff at the departure check-in counter were not required to give due diligence in confirming that a check-in passenger has accomplished his/her eTravel upon check-in. In fact, this would only require minimal effort from the airline staff to verify the QR Code of the passenger for a smooth transfer to other airport queues. Instead, the passenger who has failed to accomplish the eTravel experienced delays and suffered the burdens at the airport.

### **4. Recognition of Special Cases (Provision of Alternative Modes)**

Given that the exemption from eTravel registration was limited only to passengers with a diplomatic status, it was highly recommended to consider alternative modes on special cases, such as:

#### **a. Option to fill-out paper-based departure and arrival cards**

This is in consideration of passengers with special needs (e.g. PWD, Medical Patients, Infants, elderly, and others who are deemed incapacitated to accomplish digitally).

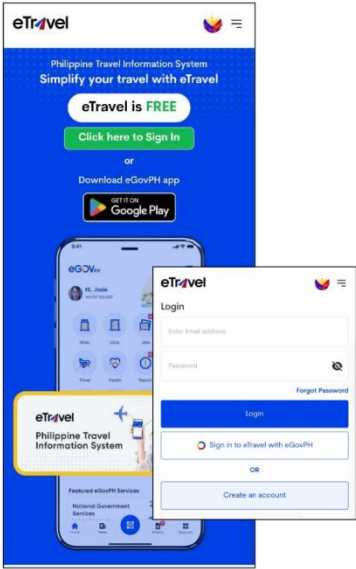
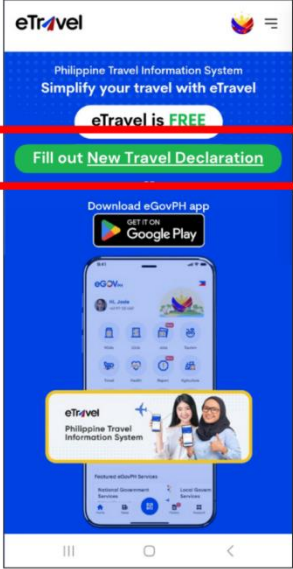
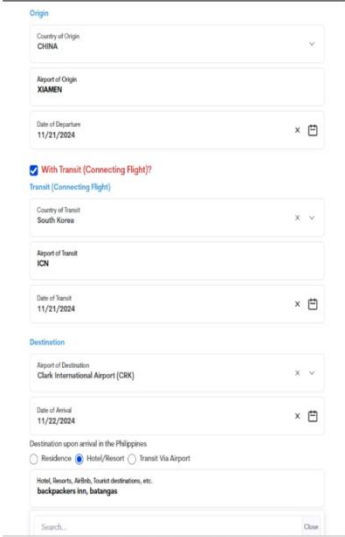

To still carry on the objective of the government in terms of “control in passenger data gathering” through its digital mode (eTravel), it is recommended that an “Assigned or Specified Lane” in Immigration and BOC be opened to cater to the above-stated classification of passengers. The proposed designated lane (officer-in-charge) shall then be accountable for taking control of the data gathered through the paper-based option.

#### **b. Exempt all departing Filipino crew members**

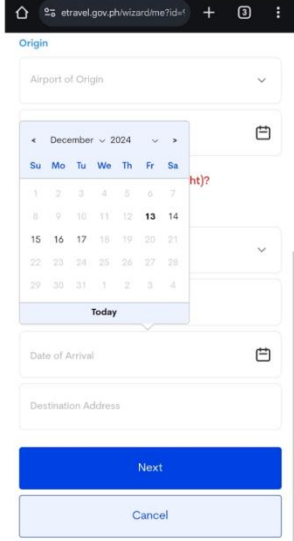

Technically flight crew members (ie, the pilots, mechanic, and cabin crew) are not categorized as “passengers” who are listed in the flight manifest. Instead, crew members were declared in the flight’s General Declaration which categorized them under the rules and regulations of the Civil Aviation Authority of the Philippines (CAAP) and international laws. Requiring them to accomplish eTravel every time they depart on-duty does not pose any added value to the objectives/goals of this system. In addition, given the volume of flight crew members traveling everyday throughout the Philippines, their inclusion in eTravel is deemed an unnecessary burden and expense to the overall database maintained by the government (DICT) in the portal.

The table 6 below depicts a prototype of the PH eTravel website with the simplified functionalities and interface that we have mentioned above. This is part of the fourth step in Design Thinking which is called the **prototype stage**.

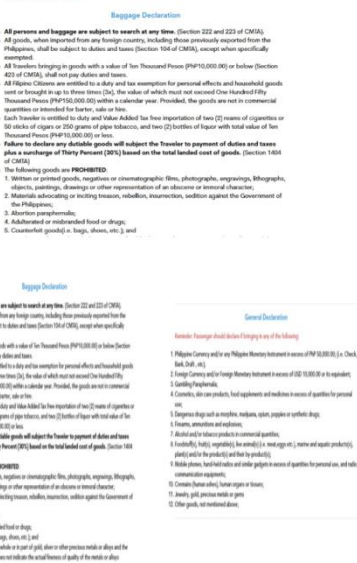
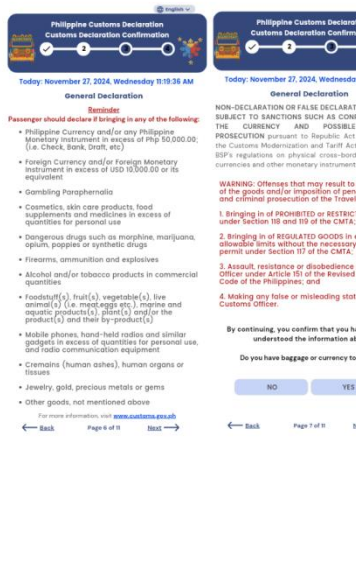
Table 6. Website Prototype


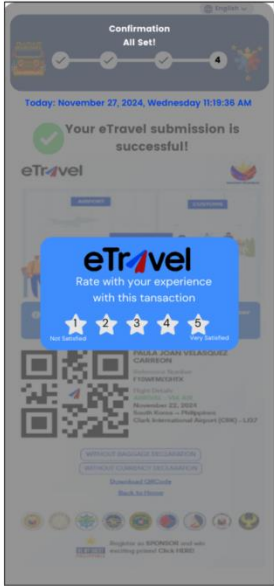
<div>Optional Process</div> <div>Sign-Up</div>	<div><div>EXISTING</div><div></div></div> <div><div>PROTOTYPE</div><div></div></div>
<div>Remove flight transit information from the travel details part</div>	<div><div>CURRENT</div><div></div></div> <div><div>PROTOTYPE</div><div></div></div>

Simplify the selection of date of arrival and departure

CURRENT	PROTOTYPE
	

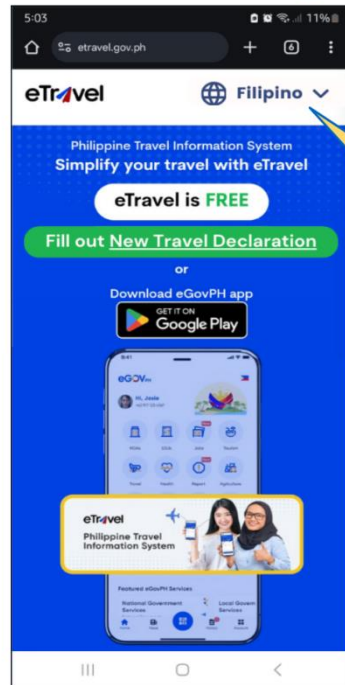
Simplify the customs declaration part

CURRENT	PROTOTYPE
	

User feedback prompt (5-star rating)	CURRENT	PROTOTYPE
	 <p>The current interface displays a confirmation screen for the eTravel system. It includes the eTravel logo, a progress bar with steps for AIRPORT, CUSTOMS, and IMMIGRATION. A blue box instructs users to present their passport to the Immigration Officer for registration confirmation and QR Code to Customs officer for clearance. Below this, there are three QR codes and flight details for Paula Joan Velasquez Carreon, including the reference number F10WFMXVHTX, flight details (ARRIVAL - VIA AIR, November 22, 2024, South Korea -&gt; Philippines, Clark International Airport (CRK) - LUS7), and options for baggage and currency declarations. At the bottom, there are links to download the QR code and return home, along with a registration prompt for SPONSOR.</p>	 <p>The prototype interface shows a confirmation screen with a progress bar indicating 'All Set!'. It displays the date and time (Today: November 27, 2024, Wednesday 11:18:35 AM) and a green checkmark confirming the submission. A blue box prompts the user to rate their experience with a 5-star rating. Below this, there are three QR codes and flight details for Paula Joan Velasquez Carreon, including the reference number F10WFMXVHTX, flight details (ARRIVAL - VIA AIR, November 22, 2024, South Korea -&gt; Philippines, Clark International Airport (CRK) - LUS7), and options for baggage and currency declarations. At the bottom, there are links to download the QR code and return home, along with a registration prompt for SPONSOR.</p>

After the testing part:  
Language options  
(English, Filipino  
(Tagalog), Chinese  
(Mandarin),  
Japanese (Nihongo),  
Korean (Hangul)

### Stage 5: TESTING STAGE



The screenshot shows the eTravel website interface. At the top, there is a language selection dropdown menu currently set to 'Filipino'. A yellow callout bubble points to this dropdown menu with the text: 'STAKEHOLDERS' FEEDBACK TO THE PROTOTYPE: OPTION FOR CHANGE OF LANGUAGE'. Below the dropdown, the website displays the 'eTravel is FREE' message and a 'Fill out New Travel Declaration' button. There is also a section for downloading the eGovPH app from Google Play.

Finally, the last step of the Design Thinking process is the **test stage**, wherein feedback is collected to re-evaluate and re-assess the first prototype in order to generate a more improved version based on the incorporated features recommended by the initial users.

## CONCLUSION

This paper focused on the challenges met by the users of the PH eTravel System, with the objective of coming up with recommendations that promote accessibility and positive user experience. Through the Design Thinking approach, the researchers were able to identify some of the key concerns, such as an overly complex registration process, repetitive technical issues, and a lack of inclusivity especially for users who may not have access to digital devices. Among others, these findings revealed the requirement for simplified interfaces, multilingual alternatives, reliable internet connectivity at the airports, and alternative paper-based forms in special cases. Recommendations included the streamlining of the registration process,

improvement of information dissemination, and provision of proactive technical support. Tackling these challenges will allow the eTravel System to set up a wider range of travelers in line with the government's objective of quality service and superior border security. It, however, points to the fact that continuous feedback and iterative development are central to having more inclusive travel experiences. Future studies will have to build on these findings for system refinements and accommodate the changing user needs.

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