The Study of tendencies and factors related to users adoption of the new service design at Thai Embassy, Stockholm.

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ABSTRACT  
This master thesis studied key determinants in service innovation that contribute to user adoption. The study applies design method to understand Visa applicant experiences and tendency to adopt a new service design, which the standard is set up by production workers at Thai embassy in Stockholm Sweden. The methodology for the design research includes participant observation, staff interview and user survey, which provided insights on users and determinants reflecting on the relevance of co-designing solution by media consultant and production staffs. The results show that service design that is pioneered by production workers shows a positive result. Most participants did not find the current process difficult, however, more than 70% are willing to use the new service and willing to pay an extra fee. Non-first-time users and participants who live out of Stockholm show the highest willingness to adopt and willingness to purchase the new service even though their rating to the convenience of the current service is the highest among other groups of participants. The study also shows that the participants in all age group are adoptive and shows high willingness-to-pay towards add-on services.

Author Keywords  
Service design; governmental sector; embassy; Adoption;

1. INTRODUCTION  
Many government sectors of Thai government are slow to adopt technologies and remain largely paper-based, as well as Thai embassy in Sweden.

Sweden has been named the world’s second most innovative country in 2016 by The Global Innovation Index 2016 (WIPO 2016). Thai Embassy is considered falling behind in service innovation despite the fact that it is located and giving out service to one of the most innovative countries in the world.

Some governments, like Sweden and Denmark, are more progressive which adopted ICT earlier and set an example for others. By having a national framework the government can significantly reduce working waste, corruption, and inefficiencies while increasing transparency and credibility (Anderson, Wu, Cho, & Schroeder 2015). Europe’s E-government report has shown that 73 percent of individual using the Internet for interacting with public authorities and 42 percent of individuals using the Internet for downloading official forms from public authorities in Sweden in 2015 (European Commission, 2016).

While this shift towards a service economy happened, The Government sector has also changed their pace steadily. This correlates with the increasing speed of development in IT, which in turn has driven customer demands and expectations. Thai embassy needs to adapt their way of working to increase their capabilities in responding to such developments as well as develop a sustainable solution.

Agility can be the solution and has the ability to deal with changing requirements and environments. Process agility becomes important in development. Organizations use agile practices for design and development where the focus is on people, rapid value delivery, and responsiveness to change (Lankhorst 2014). A new perspective on service design processes with agile development can help providing the development with a new way of working to specific circumstances and deal with multiple stakeholder perspectives, bottom-up innovation, and co-value of different service aspects (Lankhorst 2012).

2. RESEARCH QUESTION AND OBJECTIVE  
The research aims to find out about visa application service whether the service design pioneered by production staff is effective and what key determinants contribute to user adoption. In this paper we will focus on the study of user experience and determinants of adoption new services at Thai embassy which will cost extra fee; explore the current customer and staff pain points in using current services, and find out what different factors influences the new service design to be accepted and adopted.

3. DELIMITATIONS  
The process of Visa application includes many parties from Government sectors including staffs in consular affair both
in Sweden and Thailand. However, for this study, we will only focus on the visa applying process that occurred between applicants and staffs in Stockholm, Sweden.

There are limitations to some process such as payment for visa fee, which involved more than one government sectors, which will limit the study and may result in limited flexibility in the proposed solution. Due to the starting time of this thesis, there are also limitations regards the period of data collection. The survey for data collecting was done only in spring, which the result may have missed customers experiences in winter period. However, the study tried the best to explore the overall experience of the visa applicants.

4. VISA SERVICE AT THAI EMBASSY IN STOCKHOLM

THE CURRENT SERVICE

Currently, Stockholm and Gothenburg are the only two places in Sweden where people can apply for the visa. Applicants have to apply individually, which is already a drawback for people who live far away.

Visa applicants will find the form on official website and service desk at the embassy. Applicants need to download, print it out and fill in the application form manually. During opening hours, applicants can randomly walk in without prior booking. The available time for handing in visa application is from 9am - 12pm. The applicants will pay upfront and only cash is accepted. After that applicant will need to make another visit in 3 days in order to pick up their passport with printed visa. The opening time for picking up visa is from 2pm - 4pm.

By seeing the service as a visitor, there are rooms for tech-solution to bring a more efficient and flexible service. Also, by bringing in tech-solution to catch up with society may possibly attract more applicants as well as manage more effective resources.

5. THEORY AND RELATED RESEARCH

Service Design

Service design is part of service innovation where technology can help pave the way for service development for organization to create new service or to analyze and improve existing services (Lankhorst 2014).

The aim of service design is to create a good performance for users which means Service design focuses on the experience of people in each context and in each stage of the design process (Holmlid 2007). In order to create a good service, the service design cannot be isolated but work closely with service development, management, and operations and marketing (Edvardsson, Gustafsson, Johnson & Sandén, 2000).

The processes of service design contribute with various methods such as analyzing with customer journeys, or service interface (Holmlid 2007). Another Agile Service Design Framework is to define, discover, design, and deliver (Parker 2015). First is to define the context, identifying concept and value for launching a new service. Mairi Macintyre, who is the editor of service design and delivery, shared that the ultimate goal of service design is also to create a favorable customer emotion. She mentioned that service design should start by answering fundamental sets of questions, which are 1) What kind emotional response do we want to create? 2) What kind of Service are we seeking to provide? And 3) What kind of business are we in? (Macintyre, Parry, & Angelis 2011).

Service design is also to discover or understand the detail of user needs. Taiichi Ohno said that, first, a careful inspection of each user role needed to be done (Macintyre, Parry, & Angelis 2011). User study is needed in order to get rid of ‘waste’, users are the ones who can ‘see’ the waste: they know how much time they need spend to get service, how much repetitive work they have to repeat to get the process done. These wastes are problems that Service Design has to figure how to deduct and turn human messiness into systems (Macintyre, Parry, & Angelis 2011). A Service organization has a high degree of input uncertainty or a high degree of variety such as various paper works for various visa type. By understanding demand from the customers’ point of view, management will be able to see the advantage of designing system to absorb variety and uncertainty (Macintyre, Parry, & Angelis 2011).

After identified users needs are understood, the solution can be designed to meet the need. The importance of Service design was stated by Professor Irene Ng that it needs to co-create value with both the customer and the resources (Macintyre, Parry, & Angelis 2011). A co-design involves users of service to combine input and skills of people with many different perspectives to address problems (Bradwell & Marr, 2008). Many product manufacturers are increasingly interested in engaging with customers at an earlier stage (Macintyre, Parry, & Angelis 2011). The rational use of resources and the efficient co-creation value will also help the organization achieves service sustainability goal (Wolfson, Mark, Martin, & Tavor 2015).

Ohno supported the idea of co-producing but mentioned that ‘first you must standardize before you can improve’. While this might be the case in manufacturing, in a service organization to standardize may result in the system’s less ability to absorb variety. Instead of letting the hierarchy or experts determine standards and Ohno believe that we should place importance on production workers and let them be the one who first set the standard (Macintyre, Parry, & Angelis 2011).

In common process in sustainable improvement is to have the design solution then go through Check cycle (Macintyre, Parry, & Angelis 2011). The solution of design service should be delivered or validating and test against user in order to achieve outcome or specific business goal (Parker 2015). Ohno also suggested that we should not codify method because it can prevent understanding and lessen the chance to challenge the assumption (Macintyre, Parry, & Angelis 2011).
Adoption

The goal of service design is also to be accepted or to satisfy stakeholders and let them find that it’s efficient and effective (Brem & Viardot 2015). User adoption is essential to success.

The adoption of service by customers is important. Many researchers aim to understand how the customers’ perceptions of service innovation characteristics are influenced by their co-production if the co-production features will help users find the service more attractive and, as a result, easier for them to adopt (Brem & Viardot 2015).

Not only service characteristic, Service adoption is influenced by various factors such as users characteristic, or social factors. Health care service prototype used open-ended question to ask potential users, physicians, and nurses and found out that service character such as cost, time factor, mobility and content were emphasized by interviewees and considered to be important factors whether to adopt the service (Daim, Gerdsri, Basoglu, & Albar 2011).

However, in a global context, service firms would find what sells in some countries or in other regions may have different appeal (Macintyre, Parry, & Angelis 2011). Therefore different counties may find different factors to their service adoption.

In the research of Users’ adoption of e-banking services in Malaysia claimed that privacy, security and convenience factors play an important role in determining the users’ acceptance of e-banking services with respect to different segmentation of age group, education level, and income level. Ten attributes are tested which are convenience of usage, accessibility, features availability, bank management and image, security, privacy, design, content, speed, and fees and charges. They found out the major sources of dissatisfaction, which are Privacy and security (Lean, Zailani, Ramayah, & Fernando 2009).

There is a study from UAE identifies confidentiality and users’ trust and attitudes toward using technology as key determinants of overall satisfaction and the subsequent adoption of e-government services (Rodrigues, Sarabdeen, & Balasubramaniam 2016).

A study in Greece shown that ‘performance expectancy’; citizens perception that the services need to be useful, ‘effort expectancy’; services needed to be easy to use if there were to be used by those with limited online experiences, are important for citizen decision to adopt the services (Alawadhi & Morris 2009). Moreover, ‘trust of intermediary’, ‘trust of the government’, ‘trust of internet’, and finally ‘social influence’ are key drivers influencing directly or indirectly the user’s intention to adopt the service. User characteristic variables such as age, gender, and educational level and Internet experience were found to associate with the adoption of e-Government in Greece (Alawadhi & Morris 2009).

A study of e-banking and commerce in omen in 2017 show that there is a significant relationship between usefulness, ease of use, and trustworthiness with the adoption and use of online services (Shatat 2017). In Poland, they also found that trust is an important factor as well as factors such as convenience of use and safety (Szopiński 2016).

From above, we can see that apart from service character, trust in the service and organization seems to play a big part for adopting services.

6. METHODOLOGIES

This thesis’s method studied current customers experiences and expectation. The study proposed the new service design which is set by production workers to see its potential to be adopted and see what are the factors that may influence user to start using or not using the service.

Following the Lean and Agile Development, we try to approach a more efficient and quicker delivery method and focuses on the primary need of both embassy staff and customers. The platform will focus on people and respond to their need (Blank 2017).

In order for service to be completed, it has to be partly produced by the users. The participation of customers in service exchanges creates a lot of input for the organization (Brem & Viardot 2015). Therefore, In order to achieve our goal in learning their current experience, our method is to hear from both sides of users. In this case, we have the staff who use the service from one end and visa applicant who use the service from the other end.

We gathered thoughts both from staff and users who have the direct experiences as well as receiving feedback from the proposed service while developing. User study will help us fill gaps of what we may miss to create a co-value solution as well as see what are the factors that could affect their willingness to adopt service with fee.

Data Collection

We first did an interview with the consul and the staffs who have been involved in visa application process for years to get the whole idea of what the current situation is. We sat down in their office for 4-5 weeks to see how they work with applicants. Later, Production workers, programmers, and researcher who act as a media consultant suggest the first draft of what could be the solution. After that a customer survey is done to get a bigger picture of user experience and expectation which staffs may have miss and bring the rough idea to test customers’ willingness to adopt the new add-on services in a survey form.

Observation and Staffs interview

Staff is the closest and most valuable resource that we can learn from. Especially one of the staffs who has been working in the field for 10 years. They can give us valuable...
insight information from their experience, which we help us learn a lot more in a short period of time. Therefore first we reach out to staffs and find out the problems and the initiating idea of the solution.

Over 3 months period researcher had been in contact with staffs and discussing with those who work in consular affair and spent over 4-5 weeks participating in daily activities.

**Customer Surveys**

The questionnaires use open questions to ask about difficulties in general and use five-point Likert scale to find out customers difficulties in each stage of the process. We also use open-end question to ask users’ opinion and use closed-ended question to directly ask their opinion about adopting new service design with extra fee.

One hundred surveys were collected from the VISA applicants mix in gender and age. All of the applicants are foreigner who had just finished applying visa by visited Thai Embassy in Stockholm. All of them have the most recently experienced in applying visa, which 48 participants live in Stockholm and 52 are from outside Stockholm.

The survey begins with open questions, which do not limit customer circumstance and to let customers voice freely what kind of threats come up to their mind when applying visa. The questionnaire firstly asks the basic questions of what are their pain points in applying visa, what do they wish we can do better for their process to go smoother. Later the questions draw customer into situation where they can recall different touch points they have experienced while going through the visa process. Five-point Likert scale is used to let customer rates how difficult or convenient going through the process such as finding information on website, filling forms, prepare documents and contacting embassy.

The last part of the survey, we first explain in brief details what the new service will offer and ask if they will adopt suggested service with yes and no question. Later the question provides a free writing space ask if they are willing to pay if there is extra fee and what are the minimum and maximum fee. With basic information of participants’ characteristic such as age, location, first-time applicants, we will analyze if these factors give any pattern that affects their adoption decision. Lastly, with a free writing space, we ask if there are any concerns if the embassy is going to use online service for visa applicants. This part we want to see how is participants’ attitude and trust whether towards online process, Internet, or organization.

7. **RESULT**

7.1 **Staff experiences**

Staffs need 5-10 minutes to review documents for each applicant. Time spent will also depend on type of Visa. With the restricted countries they will need to fill in interview form with could take up to 20 minutes per person.

From 9-12 in the morning staff will work on those walk-in applicants, receiving, checking document, and pass it to Consul to sign as an approval. In the afternoon staff will spend time printing all visa for applicant on that day in onetime. The process of visa is actually done within on that day. However, the visitor will notify to come and receive the passport book in 3 days.

During low season there are around 20-25 people walking in per day. In winter during October-December, which is most attractive period to travel to Thailand, there can be unexpected amount of people; up too 100 people per day, which the staff has been complaining how hard it is to rush all the work within 3 hours in the morning. The embassy usually has 2 staffs working on visa, however, in the high season they will need to hire an extra staff to help with the overloaded applicants. There were times in when there isn’t enough space for queuing inside the building in winter.

There are also third-party agencies who provide a walking in service and handling documents for them which charged up to 500kr. Staff told these agencies to come at late hour in order to give chance to individual applicant first. Each time these agencies come, staff will have to provide extra time due to large amount of applications.

7.1.1 **Customer experiences from Staff**

After firstly discussing with our staffs. The pain points can be identified at each touch point. The pain points for both staff and applicants can be classified into each step of the customer journeys.

![Applicant Journey](image)

![Staff Journey](image)

**Step 1:** According to staff, when applicants read the requirements on the website to prepare document. There are different types of information on the website. Some type of visa has extra specific requirements which may not state everything on the website. There are information that applicant usually misses such as payment method, numbers of document copy, opening hours for applying, opening hours for picking up visa etc.

**Step 2:** when application is submitted, there are numbers of document need to be checked such as expired date of passport, arrival date which has to reach amount of days on
their applying day. There were numbers of applicants from certain countries needing to write extra forms which are not available on website. This type of applicant would occupy 10-20 minutes each, which normally general tourist visa would take only 5-10 minutes. Staffs also face with unexpected number of walking-in applicants, which vary in each season. There can be as much as 300 applicants per day during winter but only up to 50 applicants per day during summer.

Step 3: paying for visa fee. Due to some circumstance, the embassy can only receive cash as payment for visa fee. There are a lot of participants miss this notified message on the website and did not bring cash. They would need to go out get cash and visit again to pay for visa fee.

Step 4: every applicant will receive a paper slip to pick up their visa after 3 days. On the slip the number will be written and the sticker with the same number will also be pasted onto their passport to find the owner on the pickup day. Applicants sometimes lose the paper and the staff will go through each stack of passport to look for it one by one.

7.1.2 Service solution proposed by staff and consultant

As for this project, we are in the business between private and government services for visa application process. We want to elicit a convenient and time-efficient process that customer will accept and adopt. We want the applicant to feel that the new service solve their problem and worth exchanging the convenience, and their time with additional fee. The Services have to make a trade-off between time, convenience and money.

The proposed online platform will be the solution to help visa applicants prepare right documents and submit their documents directly to embassy staff before visiting. The backend of the system will also provide tools for staff to check each document and contact applicants in case of any incompletions before confirming and generating visa for them. The booking system will allow customer to book date and time beforehand. On the visiting day, applicant will only need to hand in their real copy of documents and passport and, on the same day, they would be able to pick up the visa (See table 1).

The design solution will help decrease working waste such as excessive paper works, operation time in the front desk, uncertainty of operation and waiting time for staff and applicant. The online platform will be available 24 hours, which will solve the opening hour that inferred with applicants working time. We also hope that the booking system will help staff with over applications period in winter.

According to Brem & Viardot, another effective way to stimulate the adoption is to build a competitive advantage. Marketing strategy involves creating competitive advantage by differentiating a customer contact point through innovation, offering superior values to customers (Brem & Viardot 2015).

The proposed online service platform will result in market competitiveness by offering customer Quality, Speed, Dependability, flexibility and Cost-effective (See Table 2).

The Online platform will be able to control the information being filled in and standardized required documents for each visa type as a result. The applicant will be helped getting a right input and staff will require less operation time to process each application. The online platform gives uses flexibilities in applying and be able to organize their own schedule. Users will be able to depend on the booking system to make sure that they will not waste their time waiting and miss other appointments. Instead of coming to the embassy twice, this system will deduce visiting day to only one day, which the user would find it worth trading off some extra fee.

### Table 1: User Journey and Solution

<table>
<thead>
<tr>
<th>Customer Journey</th>
<th>Online Platform Solution</th>
<th>Staff Journey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Find info and prepare document</td>
<td>Standardize forms filling and required document for various type of visa</td>
<td>1. Answering to applicant inquiries</td>
</tr>
<tr>
<td>2. Submit application at Embassy</td>
<td>Online document Checking before visiting</td>
<td>2. Receive and check applications</td>
</tr>
<tr>
<td>3. Pay for visa fee</td>
<td>Remind the right amount of payment for each visa type</td>
<td>3. Receive payment</td>
</tr>
<tr>
<td>4. Pick up visa</td>
<td>Booking visiting day</td>
<td>4. Schedule pick up date/ Deliver</td>
</tr>
</tbody>
</table>
# Table 2. Platform competitive advantages

<table>
<thead>
<tr>
<th>Performance objective</th>
<th>Competitive advantage.</th>
<th>Solution to Visa process</th>
<th>Waste reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Being right</td>
<td>Standardize application filling forms and document upload</td>
<td>Operation time</td>
</tr>
<tr>
<td>Speed</td>
<td>Being fast</td>
<td>Apply online checking process, Decrease visiting day</td>
<td>Traveling time, Operation time</td>
</tr>
<tr>
<td>Dependability</td>
<td>Being on time</td>
<td>Booking schedule</td>
<td>Extra resources</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Able to change</td>
<td>Change and correct incomplete or incorrect documents online</td>
<td>Traveling time, Operation time</td>
</tr>
<tr>
<td>Cost</td>
<td>Being effective</td>
<td>Worth paying, trade off time and extra traveling cost</td>
<td>Resources cost, Operation time</td>
</tr>
</tbody>
</table>

Below are the mappings explaining how new proposed solution will change the work process

[Current situation of visa applying process]

[New proposed process]
This solution will help staff work more efficiently. It will help decrease the current manual process. As for the applicants, the online platform will help them solve their primary problem as such numerous paper works as well as going for a sustainable solution. In order to understand applicants more, we cannot leave out the study of real users. Customer expectations and perceptions need to be understood to better personalize their experiences (Bergaus 2015).

7.2 Customer Experiences

7.2.1 Difficulties

From 100 user surveys, user rate overall convenience of the visa process to be 3.21 out of 4.

In the free writing space, participants were asked if there were difficulties. Most of the comments state the problem of contacting the embassy. Staffs have trouble with answering inquiries both via phone and email due to limited number of staff and amount of work at embassy. A lot of participants mentioned short opening hours, which is not flexible with their working hours. Some comments regard small space in application forms, unclear details on website, non-card payment, language difficulties and complaining about having to copy a lot of papers or having too much paper works. However, 21 of out 100 applicants mentioned that it was “not difficult”, they are “satisfied” with the services or written “none” as in reply to this survey question.

When looking into the rating between first-time applicants and repeated applicants. It shows that 56.6% of non-first-timer rated 4, which is the highest point for convenience, while 47.8% of first-timer rated 4 for the convenience. Most of first-timers and Non-first-timers both give a high rating to the applying process. 84.9% of all non-first-time participants rated 3 and above for the convenience. While 82.6% of first-time participants rated 3 and above for the convenience.

Users find that finding information on the website is the hardest process. On the difficulty scale of 4 in each touch points which are 1) preparing right documents 2) filling forms 3) finding information on website 4) contacting embassy. The result reflects the most difficult process to be finding information on website and preparing document. The average points for difficulties in finding information on website is 1.31 out of 4 and for preparing right documents is 1.30 out of 4. The Average point of difficulties is 1.44 for first-time applicants and 1.18 for repeated applicants. However, they are considered to be very low points or the customer did not find it difficult.

7.2.2 Adoption

There are 74 out of 100 participants who said yes to the online service with extra fee.
There are 12 participants who said ‘no’ to the online service with fee and 14 said ‘not sure’. Only some participants provide reasons of saying ‘no’ or ‘not sure’. Three participants out of 12 who said ‘no’ mentioned that they do not want to pay extra fee or worried that the fee will be too high, they would prefer for it to be free. All three participants who provide comments live in Stockholm. There are 2 participants among 26 participants who said ‘no’ or ‘not sure’ mentioned that he/she is worried about security and privacy. One person who said ‘not sure’ has strongly voiced his thought against extra fee which he understood that it helps lower embassy cost and it would be unfair to claim extra fee instead of lower the fee accordingly.

While 77% of all non-first-timer said yes to adopt a new service (41 out of 53 people), 70% of First timer said yes to the new service (33 of 47 people).

The result shows 13% of non-first-timer said ‘no’ while 11% of first timer did so. The reasons are provided such as that they did not want to pay extra fee or worry about security. And 71% of non-first-timer who said no lives in Stockholm.

There are 11 % of first-timer who said ‘no’ mentioned the reason such as he/she prefer walking in and worry about privacy. 80% of first timer who said ‘no’ lives in Stockholm. One participant has written a comment said that the online platform ‘would be good ‘ despite saying ‘no’ to the service.

First timer has a higher percentage in answering ‘not sure’, which is 19%, compared to non-first-timer, which is 10%.

Most of first-timer who stated ‘not sure’ whether to use the service, did not mention any reason, however, 78% of them lives in Stockholm.

**Age and willingness to adopt (%)**

<table>
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<th>Age and willingness to adopt (%)</th>
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<tbody>
<tr>
<td>20s</td>
<td>59</td>
<td>86</td>
<td>82</td>
<td>77</td>
<td>62</td>
</tr>
</tbody>
</table>

Participants in their 30s show the highest percentage among participant in each age range wanting to adopt the service with fee followed by people in their 40s, 50s, 60s, and 20s respectively. However, there were only 2 participants in the age of 10s, which is insufficient to conclude.

**First-timer and Non-first-timer**

Non-First-time participants show a higher tendency to adopt the new service compare to first-timer.

**Location and adoption**

Non-Stockholm participants show a higher adoption compare to those who live in Stockholm.
There are 9 out of 67 participants who live in Stockholm said ‘no’ to adopt the new service. Three out of 33 participants who live out of Stockholm said ‘no’ to adopt the service. There is 15% of all participants who live in Stockholm said ‘not sure’ whether to adopt the new service while 12% of those who live out of Stockholm said so.

**Willingness to pay**

The average of minimum fee that all participants willing to pay is around 286 SEK and the maximum fee is 531 SEK. The highest fee that has written down is 2000 SEK, which was written by 5 participants. 4 of 5 participants are in the age of 60s. One participant wrote ‘whatever it takes’ instead of the amount of money. The lowest fee that has written down is 50 SEK, which is written by 6 participants who are in the age of 10s, 20s, 30s, 40s and 50s.

Non-First-timer shows a higher willingness to pay for the service with a higher average fee they are willing to pay. The average minimum fee of non-first-timer is 346 SEK while the average from first-timer is 216 SEK. The maximum fee from non-First-timer is 586 SEK while from first-timer is 463 SEK.

Participants who live outside Stockholm show a higher average of the minimum and maximum fee for online service when compared to participants who live in Stockholm. The average maximum fee is 685 SEK for Non-Stockholm participants and 469 SEK for Stockholm participants.

**Concern**

At the end of the questionnaire where we leave space for participants to write down any concern they may have if the embassy is going to use online service from now on.

Most of the participants do not have a concern. Some participant did not write down anything; 50% of all participants have written the word ‘no’ to the question and 97% of all participants said ‘no’ or ‘none’ or leave a blank space.

There are 7% of all participants who have some concern. Three participants mentioned that they have concert regards system, security, and privacy. Two participants have concern regards the extra cost and wants the service to be free. Other comments are about the format for documents they need to upload and clear communication.

**8. ANALYSIS AND DISCUSSION**

The result has shown that most pain points of customers are noticed and can be explored by talking to staffs. However, there are also some user experiences that staffs may have missed such as Operation hours, the inconvenient of design of the forms, traveling time, and language difficulties.

Most of the applicants give high rating to the whole process.
and find that their customer journey is not difficult. Users have rated overall convenient of the visa process to be 3.21 out of 4, however despite the convenience, it is surprising that 74% of all users willing to adopt a new online process that will come with extra fee. Moreover the average of extra fee that they are willing to pay is as high as 531 SEK. We can see that the tendency of adoption may not be directly reflected from the customer pain, but instead, the added value. This may imply that the trigger that makes users want to adopt new service is the want rather than the need.

Non-first-time applicants rated the convenience of current service higher than the first-time user and also have a higher percentage of willingness to adopt new service with a higher amount of purchasing power especially those who live outside of Stockholm.

First-time users find it more difficult than non-first-time users to use the current service and show a lower average of minimum and maximum fee. However, the percentage of participant answering ‘not sure’ is higher compared to the non-first-timer. As we can imply that there are tendencies for them to be adopters later on.

Proximity is a significant factor in this finding. There seems to be less willingness to adopt for those who live in Stockholm comparing to those who live out of Stockholm. Intention to Adopt has influence to the Willingness to Pay (Anwar, Salehudin, & Mukhlis 2015). In order to convince them to adopt the same service with those who live far away, the service needs to take their average of maximum amount into consideration.

As mentioned in researches regards adoption, trust is an important factor. From the result of the survey we can see that only 7% have concern over specific issue and 3% of all participants are concern over the security and privacy issue. Although ‘concern’ cannot be translated directly to ‘trust’, the result can be It implies that most participants have positive attitude towards either technology, or have confidence either in Thai embassy, in online security, or law and policy of their counties.

From the result, it reveals the potential target audiences of the new service who are those in their 30s to 50s, who often travel to Thailand and live out of Stockholm. This group of people can be early adopters or pioneer users for the service. If the marketing budget is limited this main target can be the right group to do promotion and being promoted with.

9. CONCLUSION

The study has tested the new service design concept, which the solution is initiated by production staffs. The research has proven that the service designed by production staff is effective in terms of coping with users’ core problem. User variables, such as proximity and repetitive usage, effect users’ decision to adopt service with fee.

The result shows the importance of agile development proving the standard that is set or pioneered with production coworkers is practical. As a result user shows a high adoption rate as well as willingness to pay.

Successful innovations occur when we recognize a gap between what the market needs and what is offered and directing resources towards meeting that need (Brem & Viardot 2015). By having production workers help setting the standard of service design is benefiting and producing a positive result. However, users study, as part of agile development is definitely necessary. Users have been filling up a gap of what the staffs have missed and provided good feedbacks of how service design can be marketed.

In creating co-solution together with stakeholders, such as staffs, is a friendly approach and generates a positive atmosphere. It is also a way to prepare them to accept changes and make them feel as part of the innovation movement.

Key determinant such as proximity proves to be an important factor, which affects the decision to adopt service with fee. The result of the study also shows that innovation does not wait for customers’ need or desire to change because Innovation can create new needs and wants (Evans 1997). The applicants find the current visa process at the embassy very convenient but they are willing to use the new process even though they will also have to pay extra fee.

The methods used in this research are effective in terms of studying tasks and time. It helps covering a lot of details from both perspectives of user and staffs in short period of time. However, a more concrete method or quantitative method in finding favorable staffs’ emotion after producing their own proposed service solution maybe a good fulfillment.

In order to keep up with rapid changes in the innovative society such as Sweden, the organization needs to define its products in terms of both customer needs, wants and expectations. Future study can explore more into user character and service character for a specific group such as a deep study of users who live in close proximity and what kind of benefit could trigger enhance the adoption and usage. More studies can be investigated into service sustainability on how to design a more sustainable process as well as satisfy need to customer.
REFERENCES