X International Scientific Siberian Transport Forum

Airline Safety measures to prevent the COVID-19 pandemic that affect the confidence of passenger's decision making to travel with domestic low-cost airlines during the pandemic

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Abstract

The airline business is one of the businesses which have heavily been impacted from the COVID-19 pandemic. International travel restriction due to border closing policy in some countries, restricted mobility, and social distancing have significantly ceased the aviation industry. Departments concerned have issued both short-term and long-term safety measures for the prevention and control the spread of the infection. Several preventive measures have been proposed.

The purposes of this research is to study the Airline Safety Measures to prevent the spread of the Coronavirus Disease 2019 (COVID-19) affecting the confidence of passengers in decision making to travel with domestic low-cost airlines during the pandemic. The quantitative and qualitative were conducted by online questionnaires. 400 Sample groups from passengers of 4 low-cost airlines which operated domestic flight in Thailand, 152 from Thai Air Asia, 86 from Thai Lion Air, 96 from Nok Air and 66 from Thai Viet jet. The descriptive statistical analysis included Pearson's simple coefficient and multiple regression analysis were applied. The results found that the most significant factors of safety measures to prevent the spread of the Coronavirus Disease 2019 (COVID-19) affecting the confidence of passengers in decision making to travel domestic flight with low-cost airlines during the pandemic were cabin density control measures, passenger hygiene measures, passenger screening measures, pre-boarding measures, aircraft preparation measures and service personnel hygiene measures respectively. Touch less technology should be implemented in all activities related to the air transportation travel process for preventing the spread of the Coronavirus Disease 2019 (COVID-19).

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1. Introduction

A novel coronavirus, severe acute respiratory syndrome (SARS) causing coronavirus disease 2019 (COVID-19) has emerged since December 2019. It was first found in Wuhan, Hubei Province. People's Republic of China and it has rapidly spread, resulting in an epidemic throughout China, followed by an increasing number of cases in other countries throughout the world. COVID-19 has given significant impact on the economic development worldwide. On January 30, 2020, the World Health Organization (WHO) declared the outbreak a Public Health Emergency of International Concern due to the significant increase in the number of COVID-19 cases. On February 12, 2020, the WHO named the disease caused by the novel coronavirus as "Coronavirus Disease 2019" (COVID-19).

Despite many countries has taking steps to contain the disease, but the number of infected cases continued to increase steadily. As of April 29, 2020 there were 3,151,603 confirmed cases and 218,484 deaths were reported. The reported cases of the United States were 1,035,765 confirmed cases and 59,266 deaths, while Europe had the highest number of 232,128 confirmed cases and 23,822 deaths in Spain, followed by 201,505 confirmed cases and 27,359 deaths in Italy. The highest number of infected cases in Asia was in Turkey which had reported 114,653 confirmed cases and 2,992 deaths, followed by Russia at 99,399 confirmed cases and 972 deaths, while Thailand had reported 2,947 confirmed cases and 54 deaths (Business people, 2020).

This situation was created economic recession globally. The impact of this approach was people stayed at home, businesses lose revenue and laid off workers and unemployment levels increasingly. However, many efforts have been done by government in order to control the spread of COVID-19. Travel restrictions and social-distancing measures had driven a sharp fall in consumers and business expenditure. Many countries were performing a lockdown approach for movement control order (MCO), borders were closed, people were frustrated of COVID-19 spreading, which effected to the aviation industry, airlines had to suspend their flights excepted some repatriated and some domestic flight still operated.

Thailand, detected the first COVID-19 infected case outside China on 13 January 2020 from a Wuhan resident who travelled to Bangkok during the New Year holiday and had tested positive for the SARS-CoV-2 virus. Over the next several weeks, 14 further cases were detected in travellers from China. Thailand's first locally transmitted COVID-19 case was reported on 31 January and continued to increase through February and March many cases related to super spreading events, an indoor Thai boxing event and people gatherings at downtown bars, which leaded to a rapidly rising of many confirmed cases. By the end of March 60 provinces from 77 provinces of Thailand had reported cases and the pandemic was widespread. Thailand's national committee on communicable diseases has listed COVID-19 as a dangerous communicable disease.

The Public Health Ministry announcement designating COVID-19 as a dangerous communicable disease on Sunday 1st March 2020. The Prime Minister declared a state of emergency in accordance with the Emergency Decree on Public Administration in Emergency Situations. The Announcement of the requirements under Section 9 of the Emergency Decree on Public Administration B.E. 2548 (2005) issued 14 copies and issuing announcements regarding the extension of the period for declaring a state of emergency in all localities throughout the Kingdom by stipulating various measures to control the outbreak of COVID-19.

Thai government ministries acting together as part of the newly created Centre for COVID-19 Situation Administration (CCSA), and under the Prime Minister's leadership, a public health and social measures were implemented. A state of emergency was declared an evening curfew was implemented. International and domestic flights were stopped, the border was closed no tourists can enter the country and people were advised to stay home not to travel across provinces.

The schools, universities, and some businesses such as gyms, golf course, barbershops, markets, bars, restaurants, public parks, and boxing stadiums are subjected to be closed. It can be seen that such measures greatly affect the aviation industry due to the Civil Aviation Authority of Thailand (CAAT)'s announcement of a temporary ban on international passenger flights to Thailand (Ushakov, 2021). Aviation Industry was one of the greatly affected industries by the COVID-19 pandemic.

The Locally transmitted cases began to decrease as a result of a comprehensive response of the ministry of public health by isolate and treat the confirmed cases in a hospital or hospital. Moreover, strong community-based contact tracing and quarantine the tracing and quarantining their contacts system were done to observe their symptom. "Thai Chana" application was being used for Thai people to boost authorities' efforts to control the highly contagious disease by tracing users' movements.

By the end of April 2020, local transmission had been controlled across the country. Public health and social measures were strategically phased out as facilities and businesses largely complied with recommendations on physical distancing, handwashing and wearing masks in public. Schools were re-opened but students had to wear mask and keep social distancing. Some business started to run but there are few restrictions in activity. Domestic travelling travelled more while the borders remaining closed to almost transportation. Low cost airlines started to re-operated with a new normal of transportation measure under the Civil Aviation Authority of Thailand (CAAT)'s policy and regulations. All 4 low costs airlines including Thai Air Asia, Nok Air, Thai Lion Air and Thai Viet Jet, operated domestic flight in Thailand during the COVID-19 pandemic, have to communicate the airline's rules and regulations and the safety measures taken to prevent the spread of COVID-19 with their passengers in various channels to make the passengers understand and can comply with it, this can also build confidence in passengers in deciding to choose their services.

The researcher therefore raised the question of what safety measures to prevent the spread of the COVID-19 that affect the decision to choose a low-cost airline for travelling in the situation of the COVID-19 pandemic. This can lead to the determination of research objectives, to study the confidence measures in preventing the spread of COVID-19 that affect the decision to choose low-cost airlines in the situation of the Covid-19 pandemic.

The results from the study can further present to the Civil Aviation Authority of Thailand to formulate policies and guidelines for ensuring the safety of passengers during critical epidemic situations as well as the coronavirus pandemic (Covid-19). Moreover, we can apply the research findings to low-cost airlines as a guideline to build trust with passengers to decide to choose the airline which leads to generate the company's revenue.

2. Literature Review

2.1. Aviation Safety Theory

According to Standards and Recommended Practices (SARPs) from the International Civil Aviation Authority (ICAO), prerequisites for Member States to meet administrative responsibilities in connection with or directly support the operation of safe aircraft focus on Member States and aeronautical service providers such as accredited aviation training organizations or air traffic service providers with regard to the highest safety for passengers.

Shappell &Wiegmen (2003) also proposed the idea that the main components affecting the management of an aviation organization are management systems. There must be three components to prevent accidents or protect the safety of aircraft and passengers, the first component is Resources Management which is by mean of managing human resources, budgets, tools and facilities to be correct and in accordance with the rules and regulations of the International Civil Aviation Authority (ICAO).

The second component is Organizational atmosphere (Climate) which includes organizational structure (Structures) to be as a proportional to work properly, organizational policies (Policies) that are guidelines and organizational culture (Cultures) which employees adhere in the same way.

The last component is Organization of work processes (Process) must cover the operations (Operation), procedures (Procedure) and the audit (Oversight) to create aviation safety to make safely travelling for passengers. The Royal Thai Air Force Safety Centre states that the goal of the aviation organization is the success of the safety flight missions. The aviation organizations or airlines must focus on systematic organization management. For maximum result, the organizations have to focus on management in terms of resource management by creating a working atmosphere including issued various policies and work procedures must be organized to be effective.

2.2. Rules and Regulations from the regulatory agency

The Notification of the Civil Aviation Authority of Thailand on Practical Guideline for Air Operators, Crew Members and Airport Operators performing operations during the outbreak of Coronavirus Disease 2019 (COVID-19) was issued the measures to be a guideline for travellers during travelling by air transportation. The first measure Non-contact infrared thermometer should be used to check the body temperature of passengers and their general health condition should also be observed.

If any passenger found that his body temperature is more than 37.3 °C or there is a sign or symptom of acute respiratory infection such as cough, sore throat, runny nose or dyspnoea, air operator staff shall notify the doctor or

public health officer at such airport. If any risk factor is found from the diagnosis, boarding pass shall not be issued to such passenger.

The second measure is passengers must have a mask covering the nose and mouth (Mask) or face protection equipment for the nose and mouth (Face Covering) and must wear it at all times in the aircraft except in situations of emergency. The third measure is to establish measures and practices to maintain distance of passengers (Social distancing), including transporting passengers to and from aircraft, keep physical distancing while storing or picking up luggage in the overhead storage. Unnecessarily moving around the cabin, waiting in line to use the bathroom including maintaining a distance for passengers requiring special assistance.

The fourth measure is airlines must provide adequate alcohol-based hand sanitizer for using during flight. The fifth measure requires aircraft operators to use personal protective equipment (PPE), pilots wearing a mask or face protection around the nose and mouth and the crew is required to wear masks or face protection around the nose and mouth and rubber gloves throughout the duration of the flight. Additional equipment may be provided; such as goggles or protective clothing (PPE).

The sixth measure is the suspension of printed materials service such as newspapers, magazines or advertisement pamphlets except solely for the documents or materials concerning safety. The seventh measure prescribes that communication between the pilot and crew is primarily via an in-aircraft communication device (Interphone) and enter the cockpit only when necessary. The eighth measure requires flights operating less than 120 minutes to be suspending the consumption of the food and beverage but in some case of emergency or necessary, cabin crew may consider according to the situation. In some necessary cases, cabin crew may provide drinking water for the passenger with consideration of isolated area, as far away from other passengers as possible.

The ninth Measure is to reserve the last three rows seats for isolating patients or suspected of being sick in order to monitor symptoms and prevent the spread of disease. The ill or suspected to be affected from COVID-19 traveller (passenger or crewmember) should be quarantined on-board by the following methods:

(1) The last 3 seat rows of the cabin should be designated for emergency quarantine. If possible, the ill traveler should be seated in the right window seat.

(2) The right rear lavatory should be specifically designated for quarantine purpose.

(3) It is recommended to assign specific crew members to provide necessary in-flight service for quarantine areas, and the crew members should minimize close contacts (within 2 meters) with other crew members and unnecessary contacts.

The tenth measure about the cabin equipment, such as Safety demonstration kits, must be cleaned with disinfectant and while the machine stops, use an auxiliary power source (APU) instead of the air from the jetty. Using a high efficiency air filter or High Efficiency Particulate Air (HEPA) Filter, which must be replaced on time. If the aircraft is defective especially in regards to the cooling and circulating systems in the cabin (Air Conditioning Packs and Recirculation Fans) must be corrected as soon as possible.

2.3. Department of Airport Thailand

Department of Airport Thailand has reminded measures to prevent COVID-19 to all airports under carry out pandemic prevention in public transport by providing a service point with a not less than 70% alcohol hand sanitizer for passengers and staffs. Create the communication through various channels to remind self-protection and support cleaning staffs to increase more cleaning time.

Using disinfectant wipes to clean wheelchairs, chairs, handrails, including operating equipment, sanitary ware, and spray disinfectants in various areas in the airport building. Everyone entering in the airport must wear a mask all the time and must be screened for temperature measurements both inbound and outbound and used Ministry of Public Health's Thai Chana application to scan QR code for checking in the place you visit which help to increase the accuracy moreover, the QR code scanning can facilitate the Department of Disease Control and supports medical personnel to quickly analyze the risk of infection and diagnose the disease more easily.

2.4. International Air Transport Association (IATA)

IATA has recommended the airport operators to make a distancing sign mark on the floor and make announcement in the public area regarding of keeping social distancing among passengers, remind cleaning staffs

about cleaning disinfecting and sanitizing the surfaces and equipment regularly. Using an efficient air conditioner and filtration system. Refrain from using horizontal air blowers and providing personal protective equipment (PPE).Issuing a health screening programs for all employees.

Moreover, IATA has limited a number of passengers entering the terminal by giving the priority to airport staff and passengers who require special assistance or children travelling alone. To reduce the congestion and the risk of spreading of the corona virus disease, self-service tools such as ticketing machines and baggage tags kiosk, self-bag drop should be implemented to reduce the contact.

The equipment must be disinfected regularly, passenger's security check point must use Walk Through Metal Detector (WTMD) only and have to eliminate manual detection methods (Pat Down).

2.5. The Civil Aviation Authority of Thailand (CAAT)

In order to provide the practical guideline to all service providers which include air operators, crew members and airport operators to perform their operations to conform with Thai laws and regulations and international standards and recommendations of Department of Disease Control, Ministry of Public Health, World Health Organization (WHO) and International Civil Aviation Organization (ICAO).The purpose is to stabilize the emergency situation and prevent its escalation, the Civil Aviation Authority of Thailand hereby issue the following measures:

Pre-enplaning: Non-contact infrared thermometer should be used to check the body temperature of passengers and their general health condition should also be observed. If any passenger is found that his body temperature is more than 37.3 °C or there is a sign or symptom of acute respiratory infection such as cough, sore throat, runny nose or dyspnoea, air operator staff shall notify the doctor or public health officer at such airport. If any risk factor is found from the diagnosis, boarding pass shall not be issued to such passenger.

In-flight: For high-risk long-haul (> 4 h) flights, in-flight checking of body temperature during operation should be taken. Non-contact infrared thermometer should be used to check the body temperature of passengers and the health condition should be observed. If any passenger or crewmember is found that his body temperature is more than 37.3 °C or there is any sign or symptom of acute respiratory infection such as cough, sore throat, runny nose or dyspnoea, the ill or suspected to be affected from COVID-19 traveller (passenger or crewmember) should be quarantined on-board by the following methods:

(1) The last 3 seat rows of the cabin should be designated for emergency quarantine. If possible, the ill traveller should be seated in the right window seat.

(2) The right rear lavatory should be specifically designated for quarantine purpose.

(3) It is recommended to assign specific crew members to provide necessary in-flight service for quarantine areas, and the crew members should minimize close contacts (within 2 meters) with other crew members and unnecessary contacts.

(4) Flight crew shall notify the air traffic controller at port of disembarkation about information regarding passenger or crew who is ill or suspected to be affected from COVID-19 in order to convey the finding to the airport of entry.

Infection Control Measures for Crew Members: Given the risk level of flights, for each flight, different prevention and protection measures should be taken. Personal Protective Equipment (PPE)) shall be considered as follows;

(1) Low Risk and Medium Risk Flights: wearing protection of disposable medical masks or surgical masks.

(2) High Risk Flights: Flight crew should wear surgical masks and goggles, and change masks when considered necessary and cabin crew should wear N95 particular matter protection facial masks or surgical masks, goggles, and disposable rubber gloves, and change them when considered necessary. In order to avoid cross-infection, the cabin area can be divided into clean area, buffer zone, passenger sitting area, area for close contacts and quarantine area according to different utilities.

Each area should be clearly labelled, and it is recommended that a disposable curtain be used for the physical separation of each area.

The division should be made based on the following principles (and can be adjusted taking into account different aircraft types):

(1) Clean Area: It is recommended that the front part of the cabin be designated as a clean area for the exclusive use by crew members. No one wearing protective clothing shall be allowed to enter the clean area. The boarding gate connecting the clean area should be reserved for the exclusive use by crew members.

(2) Buffer Zone: It is recommended that the section next to the clean area be designated as a buffer zone available for use by crew members to wear and take off protective clothing.

(3) Passenger Sitting Area: It is the section next to buffer zone reserving as sitting area for healthy passengers. Passengers should be seated with at least 1 meter (m) between each other.

(4) Area for Close Contacts: It is the section next to passenger sitting area designated for the passengers having previous history in close contact with COVID-19 patients if it is required to be transported. Passengers should be seated with at least 1 meter (m) between each other, and should be at least two rows of seats away from the passenger sitting area.

(5) Quarantine Area for ill traveller: The last three rows of seats should be designated as the emergency quarantine area (observation area).

(6) Lavatories: The lavatory in the forefront of the cabin is to be used exclusively by crew members and needs to be thoroughly disinfected after each use. Each time after the operation of a passenger flight, aircraft disinfection shall be conducted both in passenger compartment and cargo compartment according to the measures prescribed by the quarantine officials. Airport Terminal Disinfection shall be performed immediately after each use of the areas where the patient or patient under investigation (PUI) have gone through or utilized including the quarantine area and lavatories in conformance with the standards prescribed by the Ministry of Public Health.

2.6. Confidence Concept

Service providers need to build trust with their customer in order to have good relationship with them. According to Stern (1997) Emotional intimacy forms the basis of firm-customer relationship, and it has five major components to impulse buying: first, communication Self-disclosure and sympathetic listening, by communicating to customers in a way that makes them feel at ease, employees should be open and honest and ready to help customers.

Second, caring and giving, being attentive and ready to provide customers with a close relationship. It consists of generosity, warmth and a relationship with customers.

Third, commitment is an obligation that is related to the customer where organizations should maintain a good relationship with customers.

The fourth aspect is to provide comfort, it is to show customer care which will make customers feel the convenience received from service and the fifth aspect of resolving conflict resolution, this can make customers feel comfortable. It is better for the organization to resolve conflicts with its customers. An organization should take responsibility by stating that If the customer confused or dissatisfied with the product or services so the employees should take a quick action immediately to avoid customer's angry.

Sztompka (1999) regards interpersonal and social trust as external boundaries of continuity within which several social categories of trust fall.

Trust consists of 6 factors: 1. Consistency 2. Efficiency 3. Representation 4. Justice (Fairness) 5. Readiness to take responsibility (Accountability) and 6. Benevolence

2.7. Consumer behavior concept

Ushakov et al. (2020) had stated that consumer behaviour patterns can create an understanding of buying behaviour by creating the stimulus-response model to describe the processes details and consumer responses pattern. Meldrum's model has three components, the first component is External factors including stimuli that result in consumer demand for goods or services such as the new communication technology creates demand and decide to use the service.

The second part is the purchase process. It is the next step from the first segment where consumer demand for a product or service leads to the purchase process containing factors that influence the decision-making process include accessibility, trust, confidence and the safety of the service, etc. These factors will cause consumers to be aware of the need for a product or service and lead to information searching to assess alternatives according to their needs and their purchased behaviours such as product styles, branding, product distribution, and payment forms and purchase time.

2.8. Decision Making Theory

Process of decision making means determining the process of decision making from the first step to the last step by using rationale to help in finding conclusions in decision-making. Plunkett and Attner (1994) proposed a sequence of seven steps in the decision-making process which are:

Stage 1: Define the problem, it is an important step because of whether the problem is identified correctly or not will affect subsequent steps of the decision-making process.

Step 2: Identify limiting factors, management determines the scope of a constraint resources that make up the manufacturing process, including manpower, capital, machinery, other facilities and time. Knowing the limitations or conditions that can't change will help determine the scope of development narrower options.

Step 3: Develop potential alternatives, potential and possibilities alternatives can bring more beneficial solutions.

Step 4: Analyze the alternatives, when management develops alternatives, the advantages and disadvantages of each alternative are carefully compared.

However, some alternatives that are subject to organizational restrictions may have undesirable consequences, such as one option of increasing productivity including investment in installing computer systems. This will help to solve the problem. But there may be problems with the decline in employee morale later on.

Step 5: Select the best alternative, when management has made decision after analyzing and evaluating the options, management should again compare the advantages and disadvantages of each option to consider only one of the best alternatives which have the least negative consequences and give the most benefit but sometimes executives may make compromising choices by combining the best components of each option.

Step 6: Implement the decision, the executives should be able to implement the decision. In order to operate effectively, management should define a program of decision-making. It identifies the operating schedule, budget and people involved in the practice. There should be a clear delegation of authority and provide a communication system that will help make decisions acceptable. In addition, management should establish procedures, rules and policies that contribute to the efficient operation.

Step 7: Establish a control and evaluation system, this allows management to receive feedback on whether the performance has been met or not. Feedback helps managers to solve problems or make new decisions with the results of best practice.

Vinichenko et al. (2019) have stated that decision making is the process of comparing returns or benefits and the decision maker chooses the one that gives the most benefit. Decision making is a necessary duty because resources are limited and human beings have unlimited needs, therefore, decisions need to be made in order to gain the benefit and satisfaction of using limited resources to achieve organizational goals. In the performance of different departments in the organization, there may be conflicts such as production department, human resource department, finance and accounting department.

The management therefore has to make the final decision. to achieve the goals of the organization. The decision-making process consists of two parts: the first part deals with setting objectives, goals, limitations, and setting alternatives; the second part deals with the selection of alternatives or the best strategy according to the circumstances. Decisions come in many forms depend on the purpose and nature of the problem.

From the review of relevant literature based on the concepts and theories mentioned above. The researcher applied the concept of Stern's theory and concept of a confidence components (Stern,1997) and concept of safety control measures for the prevention of Coronavirus Disease 2019 (COVID-19) as announced by the Civil Aviation Authority of Thailand (CAAT) on April 6, 2020.

Including Plunkett and Attner's concept of decision-making process (1994) and decision making concept of Sokolovsky (2012) to be compiled into a conceptual framework for research on Airline Safety measures to prevent the spread of coronavirus disease 2019 (COVID-19) affecting confidence in the decision making of passengers in travelling domestic low-cost airlines. The safety measures are in 8 different areas which are as follow:
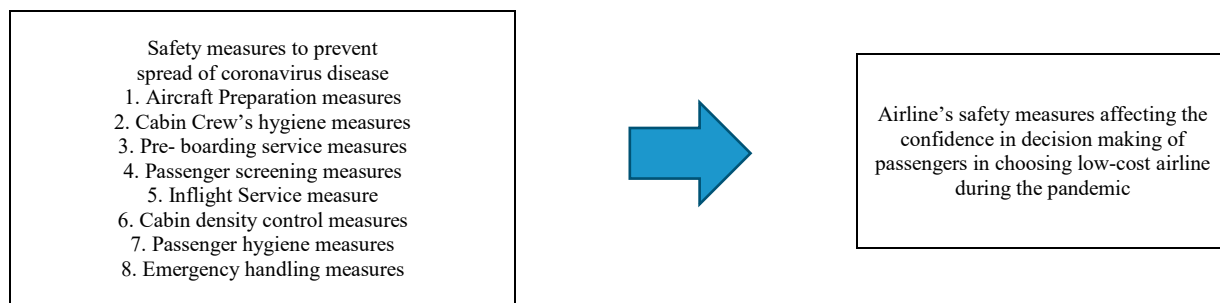
Fig. 1. Conceptual Framework for Safety measures to prevent the spread of coronavirus disease 2019 (COVID-19) affecting confidence in the decision making of passengers in choosing low-cost airlines. Case Study low-cost airlines operate domestic flight in Thailand

3. Methodology

The researcher adopted quantitative research. The data was collected by using a questionnaire from passengers using low-cost airlines in Thailand. The research design was used in a non-experimental design with a cross-sectional study or survey research one time collecting data between April-October 2020 from passengers travelling on 4 low-cost airlines, Thai Air Asia, Nok Air, Thai Lion Air and Thai Viet Jet, departing from Don Mueang Airport and Suvarnabhumi airport.

The units of analysis consist of people who are passengers using low-cost airlines travelling domestically at Don Mueang Airport and Suvarnabhumi airport by low-cost airlines registered under Thailand's operations consist of (1) Thai AirAsia, (2) Thai Lion Air, and (3) Nok Air and (4) Thai Viet jet the four low-cost airlines with the highest market share in Thailand (Bangkok biznews, 2020).

The questionnaire was conducted randomly at the period of April-September 2020 Q2-Q3 from passengers who boarded four low-cost airlines as following number 1,857,665 of Thai AirAsia 1,042,978 of Thai Lion Air 1,195,885 of Nok Air, and Thai Vietjet airlines for 811,777 people. Thus, the total populations were 4,908,305.To be calculated as an example in a study according to the principles of Yamané (1973).

The questionnaire will be distributed to size of 400 sample groups. After calculated the sample size from Taro Yamane formula 400 samples groups were taken at random for each airline the number of samples size for each airline was as follows:

1. A sample of 152 passengers of Thai Air Asia
2. A sample of 86 passengers of Thai Lion Air
3. A sample of 96 passengers of Nok Air
4. A sample of 66 passengers of Thai Viet jet Airlines

4. Results

Multiple regression statistics was applied and it found that the measures which has the most affect to the confidence of decision making in choosing the airline during the spread of the coronavirus disease 2019 (COVID-19) was the measure of how the airline control the cabin density followed by passenger hygiene measures passenger, screening measures, Pre-boarding Service measures and aircraft preparation measures respectively

5. Discussion

From all 6 factors of the measures, the passengers' perception of the Cabin density control measures was the most significant important factors that affected the confidence of the passengers in choosing low cost airline during the pandemic. Passengers found that all airlines had strictly implemented the physical distancing after the pandemic first arose, the airline issued the policy to block some seat to be empty because the physical social distancing among airplane passengers could greatly reduce the risk of COVID-19 spread but, after the contact cases were decreased, the airline has arranged a full number of passenger loading in the flight, if the flights were fully booked it mean that there would be no empty seat between each passengers' seat.

This shows the laxity of the safety operation even the coronavirus disease (COVID-19) was spreading.

Furthermore, the vaccination has not been done at that time and also travelling during the coronavirus (COVID-19) outbreak was not a strictly practice for passengers to keep social distancing when boarding or deplane the aircraft when the flight arrived at its destination. The passenger should be notified from the cabin crew of being too close to someone else and reminded of the need to keep a distance. If the cabin crew did not give any warning or remind them as a result, passengers will act as usual as they have usually done at the normal situation an after the plane was completely stopped, passengers were prepared to leave the aircraft by taking their belongings from the overhead bin and standing in the aisle without distancing, this may affect the transmission of the virus even wearing a mask.

In conclusion, From 6 safety measures area, the most important of safety factor for passengers' confidence in decision making in choosing the low cost airline domestic flight during the pandemic is in terms of Cabin density control measures and it was related to the concept of Shappell & Wiegmann (2003) who gave definition of the key elements of systematic administration and management to protect passenger safety is the operators have to comply with the rules and regulations of the International Civil Aviation Organization (ICAO).

According to the concept of Larzelere & Huston (1980). stated that the decision making within the expected outcome based on sufficient information, passengers made decision based on information that the airline communicated to the public by social media and from their travelling experiences. If the airlines safety standard shave not followed the rules and regulations from the authorities, then the passengers will choose to fly on an airline that complies with the standard measures to ensure their highest safety.

The second measure affecting the decision making of passengers in choosing the low cost airline during the pandemic is the passengers hygiene measures, all passengers have to wear the mask all the time they are on the flight include providing alcohol-based hand sanitizer for using along the flight and eating or drinking in flight must be suspended to reduce the risk of COVID-19 spread and to conform with the wearing mask in flight policy. The cabin crew who take responsibility must announce and supervise passengers to wear masks at all times for the safety of other passengers and the passengers themselves.

The following measures include passengers screening measures in terms of strictly measuring passenger temperature according to the standard policy. Checking passenger's temperature before boarding. If the temperature exceeds 37.5 degrees that person must be sent to a doctor at the airport for medical confirmation prior to travel. Temperature checks is one of the most immediate and long-lasting countermeasures against Covid-19).

All four low-cost airlines must cooperate with the authorities that control the airport to strictly comply for the safety of passengers. The next measure is pre boarding the aircraft measure, this measure shows how the airlines use the new technology such as automatic boarding pass printer, luggage tag printer, self-bag drops to reduce contact. Each airline has different in how they use these devices because it is the cost burden of the airline, however, this measure is one factor that incentivizes the confidence of passengers in choosing an airline to fly with because these can reduce the risk of contracting coronavirus (COVID-19).

The next measure affecting the decision making of passengers in choosing the low cost airline during the pandemic is the aircraft preparation measure, this measure about the airline have to do a deep cleaning in the cabin by spraying all parts of the aircraft with a disinfectant spray along with using a HEPA Filter air purifier to comply with the measures prescribed by the Civil Aviation Authority of Thailand and the airlines have to communicate to passengers about the implementation of such measures to give confidence to passengers and it is an alternative in deciding to choose an airline. The least measure that affects passenger confidence in choosing a low-cost airline is Cabin crew hygiene measures in the term of pilot and cabin crew's temperature screening before boarding the aircraft and wearing a mask and gloves throughout the operation including periodic health checks of pilots and cabin crew according to the Criteria of the Civil Aviation Authority of Thailand.

These factors affecting the decision making of passengers in choosing the airline during the pandemic related to the concept of Larzelere & Huston (1980) stated that building trust with customers, especially in the situation of the epidemic of the Covid-19, Service providers must build trust in a relationship with customers by providing sincere service and disclose information. Satisfy customers' need can make passengers to become the loyalty customer. Passengers will choose the airlines service from their behaviour and how the airline can fulfil their needs.

This research also Based on the ideas of Kotler & Keller (2011) that consumers will choose what leads to satisfaction. All 8 measures in this research aimed to understand passengers point of view of which measure factors they want the airline to take action during the pandemic. If any airline provides safety measures to prevent the spread of the coronavirus 2019 (COVID-19) at least it meets the standard criteria.

6. Suggestions

Quantitative research, statistical interpretations, questionnaires and answering open-ended questions from passengers were conducted and found that safety measures to prevent the spread of COVID-19 affecting the confidence of passengers in choosing a low-cost airline domestic flights during the pandemic consists of 8 important safety measures. The most significantly important measure is Cabin density control measures where such measures involve distancing at all points in the airport starts from check-in, boarding, and in-flight, respectively.

The next measure is passenger hygiene, passengers are required to wear masks at all times at airports, in-flight and throughout the entire journey and airlines must provide appropriated quantity of alcohol hand sanitizer for passengers to reduce the risk of exposure. Follow by the measure of passengers screening measure. The temperature screening measurement should follow the standard of the Civil Aviation Authority of Thailand (CAAT) and the Ministry of Public Health (WHO) starts from pre-boarding the plane and if any passengers found any conditions infected with the Coronavirus 2019 (COVID-19) have to inform the airport doctor for medical examination to confirm the safety of other passengers before travelling. The next measure is pre-boarding services measure related to equipping passengers with self-service equipment and tools, such as ticketing machines luggage scale automatic luggage tag using modern technology to reduce exposure reduce the risk of contracting the coronavirus disease 2019 (COVID-19).

A number of new technologies are offering a touch less experience, provide health screening and monitor flows to ensure social distancing in crowded airports.

The next important measure is aircraft preparation measures in the terms of cleaning, disinfect the cabin and the cockpit through Deep Cleaning, as well as disinfection and special treatments are given to surfaces such as armrests, tables and overhead compartments. The last measures that passengers consider important are Hygiene of service personnel related to the flight attendants and pilots must wear a mask and gloves throughout the intermittent service on the aircraft during the coronavirus disease 2019 (COVID-19) pandemic.

From all 6 different areas of safety measures, we can apply all measures as a model of protocol to prevent a future new respiratory epidemic outbreak such as those that have happened in the past, such as avian influenza, SARS, etc. for airlines to implement for safety issues as shown in the diagram figure:

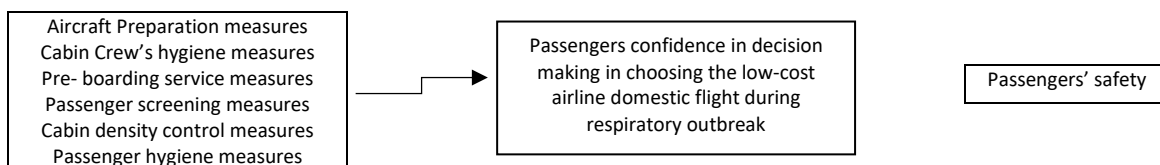| Aircraft Preparation measures Cabin Crew's hygiene measures Pre- boarding service measures Passenger screening measures Cabin density control measures Passenger hygiene measures | → | Passengers confidence in decision making in choosing the low-cost airline domestic flight during respiratory outbreak | | Passengers' safety |

Fig. 2. Conceptual Framework for Airlines Safety measure of passenger's confidence in decision making in choosing low-cost airline during respiratory outbreak

In addition, the airline should implement a policy that allows passengers to carry hand carry luggage free of charge to reduce exposure and reduce the risk of contracting the coronavirus disease 2019 (COVID-19). All airlines should proactively publicize the implementation of measures to prevent the spread of the coronavirus disease 2019 (COVID-19) to passengers in all channels.

To build confidence in travelling by air transportation.

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