THAI PASSENGER BEHAVIOR: A CASE STUDY OF IN-FLIGHT SEAT BELT USAGE

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Abstract- The purposes of this research are to study the behavior of Thai airline passengers' in-flight seat belt use. This paper was a quantitative research. A total of 400 Thai passengers with flying experience were interviewed via questionnaire. The data was analyzed and synthesized to generate new findings of Thai passenger safety knowledge, awareness and behavior. The findings revealed that most Thai respondents know and are aware of the importance of seat belt wearing. Therefore they fasten their seat belt at all times during the flight. However, some of them wear seat belt during take-off and landing only, whereas some do only when the seat belt signs are switched on or should an air turbulence occur. According to an air safety requirement, airline passengers will receive the information on safety belt use by flight attendants before every aircraft take-off, landing and during turbulence, resulting in passengers' awareness of seat belt fastening at all times during the flight. Lastly, passengers know the benefit of seat belt wearing and that means seat belt compliance can reduce the level of injury should an accident occurs. Suggestion for passenger safety is that airline operators should educate passengers on the importance of seat belt usage. The education will lead to the safety awareness, safety action and safety behavior at the end. Even though air accidents are rare these days but it can happen any time, therefore proactive manner should be implemented without warning.

Keywords- In-flight Safety, Thai Passenger Behavior, Safety Awareness, Seat Belt Usage.

I. INTRODUCTION

SAFETY is by all means the most important factor for the airline industry and at the same time the air transport industry plays a major role in world economic activity these days. Air Travel by commercial airplane is one of the best alternatives, especially for a long distance journey. The reasons are convenience and time saving. Furthermore, modern airplanes nowadays are produced based on high technology expertise and can access to remote areas with high capacity of passengers. Also compared air travel safety to other mode of travel, it is found that the chance of accident on rail is two times higher than air travel, whereas journey by road is 30 times[1]. These statistics reflect the success of air safety management in terms of incident and accident prevention. Nevertheless, air accident can occur at any second due to varieties of factors; the flying altitude, speed, weather condition, aircraft performance, human error, terrorists and other risk factors.

Despite these negative factors, safety statistics in airline business maintain at a very satisfactory level. The past safety record shows the continuous decrease in air accidents. For example in 2013, the accident rate reduced by 10 percent, compared to 2012 [2]. This record showed a very impressive performance among airline safety stakeholders. However, the causes of accidents can be varied. The investigation reports revealed that between 1990-2011, the risks of accident resulted from equipment failure (31%), Pilot error (27%) Terrorism/Conflict/Criminal (15%). The rest came from Ground/Cabin Crew, Weather, Turbulence and Air Traffic Control [3]. From the investigation reports above, it is noticeable that most causes of accidents are beyond passenger responsibility. For example, airline passengers are unable to choose the specific pilot, specific aircraft, aircraft type or whatsoever. Only one thing that the passenger on board the airplane can do something about, that is the seat belt wearing during the flight. As a result, the aircraft seat belt is the only on board equipment that passengers can rely on in order to prevent injury in case of air turbulence experience or emergency landing, either on land or on water.

Therefore, in-flight safety awareness and passenger behavior on seat belt use is the issue that is concerned and should be paid attention to closely. The stakeholders have to educate and provide relevant useful knowledge about the actual benefits of in-flight safety belt wearing in order to stimulate safety awareness and appropriate behavior in passenger self protection.

II. REVIEW OF LITERATURE

Safety knowledge, awareness and appropriate action on the airplane must be provided to airline passengers in order to create the appropriate behavior. The in-flight safety is the joint responsibility between passengers and crew. The more passengers are informed, the better safety will be in case of emergency.

The International Air Transport Association (IATA) explained that commercial aviation has a great deal of advancement in modern technology during the last century. This progress would be impossible unless the aviation safety hazards are under control. Therefore, the airline safety stakeholders pay very close attention to the incident and accident prevention and ensure that all parties concerned comply strictly with

the safety regulations. Because of this, number of incidents and accidents rate have been reduced significantly. However, ignorance to safety measures can lead to unfavorable incident and accidents. Therefore, the future of airline business depends on the confidence of travelers and the way commercial aviation safety has been managed [4].

Boeing, the oldest and one of the leading aircraft manufacturers, reviewed that safe air travel is a shared responsibility among national government, national and international regulators, aircraft manufacturers, members of airline industry and also passengers. Airline passengers can do many things to enhance their own safety during air travel, for example, paying attention to the crew, listening to safety briefings, reviewing safety instruction card in the seat pocket, keeping their seat belt fastened while seated, etc.[5].

Regarding the safety concern from national authority, in Canada for example, the Transport Canada which is responsible for transportation policies in Canada, informed airline passengers that the safest place during a flight is in passenger seat with their seat belt fastened. Additionally, there have been a number of events relating to air turbulence that highlight the importance of keeping seat belts fastened throughout the flight. Though rare, air turbulence is the leading cause of injuries to both passengers and the crew. Therefore, seat belt must be fastened during take-off, landing, during turbulence and any time during the flight that the crew think it necessary. It is a good practice to remain seated with seat belt fastened, even the seat belt sign is not switched on. The only time passenger can leave their seat, such as to go to the lavatory, is when the seat belt sign in not on [6].

Regarding the safety warning from airliners, for example Japan Airlines, passengers are requested to always keep their seat belt fastened during take-off, landing, during cruising and after landing. Even when the seat belt sign is turned off during the flight, passenger should keep their seat belt fastened at all times to prepare for sudden rocking of the aircraft. If passengers are using a blanket, the belt must be secured over the blanket [7].

III. METHODOLOGY

The study of in-flight seat belt compliance, which was a case study of Thai Airline passengers, was based on a quantitative method. This research paper utilized the sampling method of Taro Yamane (1967) to obtain 400 samples [4]. The data was collected in Bangkok by convenient sampling. The questionnaire utilized in the study consisted of checklist, Likert scales and multiple choices and comprised six main parts. The first part of questionnaire included the questions of demographic concerning gender, age, education, occupation and frequency of traveling. The second part of questionnaire included the respondents' experience from unfastened-seat belt accident. The third part concerned the level of safety belt knowledge. The fourth part was about the preference of in-flight communication tools from airline company. The fifth part included the level of awareness of in-flight safety belt wearing. And the last part concerned about the Thai passenger behavior of seat belt wearing.

IV. FINDINGS

The demographic findings of this paper which aimed to investigate the behavior of safety belt use by Thai airline passengers reported that male and female respondents were 12 percent different. The majority of the respondents were between 20 - 25 years of age. The majority of respondents earned a college degree as the highest level of education. 37 percent are students whereas 19 percent were working for a private company. Almost half of the respondents traveled once a year by airplane. (see Table I below)

TABLE I
PROFILE OF THE RESPONDENTS

Items	(N=400) 100%	
Gender		
1. Male	44.0	
2. Female	56.0	
Total		100
Age		
1. under 20 years old	10.5	
2. 20-25 years old	36.5	
3. 26-30 years old	13.8	
4. 31-35 years old	10.2	
5. 36-40 years old	4.2	
6. 41-45 years old	10.5	
7. 46-50 years old	6.3	
6. 51 years old and over	8.0	
Total		100
Education		
1. Below high school	2.0	
2. High school	9.5	
3. Two years college	16.0	
4. College degree or higher	72.5	
Total		100
Occupation		
1. Government officer	13.2	
2. Entrepreneur	16.0	
3. Company Employee	19.0	
4. Student	37.5	
5. Others	14.3	
Total		100
Frequency of traveling		
1. yearly	49.0	
2. Twice a year	11.0	
3. Every quarter	7.2	
4. Every month	3.8	
5. Every week	0.5	
6. Others	28.5	
Total		100

The findings from table 2 revealed that from personal experience, most of the respondents (96.2 percent) never have an on board experience from unfasten-seat belt accident, whereas 3.8 percent or 15 persons came across this experience.

TABLE II
RESPONDENTS' EXPERIENCE FROM UNFASTEN-SEAT BELT ACCIDENT

	Number of Respondents	Percentage
1. Never have an accident	385	96.2
2. Accident experience	15	3.8
Total	400	100

The findings from table 3 (below) revealed that majority of respondents (88 percent) realized the benefit of seat belt wearing, and knew how to fasten seat belt, 85 percent of the respondents knew how to unfasten seat belt. Anyway, the lowest level of knowledge about seat belt (11.2 percent) was unknowing the availability of infant seat belt on board. The second least knowledge was when using blanket, the seat belt should be worn over the blanket (21.2 percent).

TABLE III
PERCENTAGE OF SAFETY BELT KNOWLEDGE

	Number of Respondents	Percentage
1. Knowing about the benefit of seat belt wearing.	353	88.2
2. Knowing how to fasten seat belt.	353	88.2
3. Knowing how to unfasten seat belt.	341	85.2
4. Knowing how to adjust the length of seat belt.	215	53.8
5. Knowing that seat belt should be fastened at all times during seated.	192	48.0
6. Knowing that when the seat belt sign is switched on, passengers must return to their seat and have their seat belt fastened.	222	55.5
7. Knowing that the correct position of seat belt wearing is at the hip level.	129	32.2
8. Knowing that when passenger using blanket, the seat belt should be worn over the blanket.	85	21.2
9. Knowing that passengers must not leave their seats until the seat belt sign is switched off.	211	52.8
10. Knowing that seat belts for baby below 2 years old are available.	45	11.2

The findings from table 4 regarding the preference of In-flight communication tools that Thai passenger chose was the safety briefing announcement by crew. Whereas the safety demonstration VDO came second and the safety instruction card which can be found in the seat pocket in front of the passengers' seat was the last option.

TABLE IV
PREFERENCE OF IN-FLIGHT COMMUNICATION TOOLS

	Number of Respondents	Percentage
1. Safety briefing announcement by crew	350	87.5
2. Safety Demonstration VDO	215	53.8
3. Safety Instruction Card	184	46.0

The findings from table 5 regarding the level of awareness of the in-flight safety belt wearing revealed that there was only one choice that were rated as extremely important, another one was rated very important and the other two were rated quite important. The opinion of extremely important was that it is necessary to fasten seat belt when traveling on an airplane. However, the average mean for the four choices was 3.24 with 0.856 SD which indicated that the majority of respondents rated the level of awareness of the in-flight safety belt wearing as quite important.

TABLE V
LEVEL OF AWARENESS OF THE IN-FLIGHT SAFETY BELT WEARING

	Mean	S.D.	Level of Opinion
1. It is necessary to fasten seat belt when traveling on an airplane.	4.64	0.548	Extremely important
2. It is necessary that passengers must fasten their seat belt at all times whereas being seated.	4.20	0.901	Very important
3. Passenger should fasten seat belt only when the seat belt sign is switched on.	3.49	1.270	Quite important
4. Cabin crew should be strict with passengers who do not comply with the seat belt rules.	2.85	1.281	Quite important
Total	3.24	0.856	Quite important

The findings from table 6 concerning the behavior of seat belt wearing revealed that 60.5 percent of the respondents chose to wear seat belt at all times during the flight, whereas 40.2 during take-off and landing phase.

TABLE VI
THE BEHAVIOR OF SEAT BELT WEARING

	Number of Respondents	Percentage
1. Wearing seat belt at all times during the flight.	242	60.5
2. Wearing only for take-off and landing	161	40.2
3. Wearing only when air turbulence occurs.	77	19.2
4. Wearing only when the seat belt sign is switched on.	133	33.2
5. Others	2	0.5

In conclusion, the study revealed as followed;
1. The majority of the Thai respondents were woman, age between 20 - 25 and graduated with college degree.
2. Most of them never had an in-flight incident or accidents. Anyway a few of them had an experience before.
3. Majority of the respondents realized the benefit of seat belt wearing and knew how to fasten the seat belt.
4. The respondents were aware that it was extremely important and necessary to wear seat belt when traveling on airplane.
5. Majority of the respondents wore seat belt at all times during the flight.

V. SUGGESTIONS

Since the number of respondents whose behavior of seat belt wearing at all times during the flight was not very high, it is imperative to enhance the level of safety knowledge and safety awareness of Thai passengers. As a matter of fact, each and every passengers must be aware that accident can happen any time during the air travel without warning. Therefore, self defensive action must be taken to maintain their own welfare at all times. Additionally, it is important to inform passengers that all the safety knowledge is vital for passengers especially in case of an emergency. All passengers are required to pay close attention to the safety briefing on board the airplane; whether they be the safety demonstration VDO, the safety instruction card review or the safety announcement from flight crew and cabin crew. Somehow after listening to safety briefing announcement, passengers would think it was unnecessary to read the safety card or watching the safety demonstration VDO anymore. In other words, the passengers were more likely to think that one safety factor was enough and did not pay attention to the other. Moreover, the cabin crew must present the safety information seriously in order to draw attention from the passengers. For the passengers with children, it is important to make safety card in the form of cartoon or with picture that children can understand it easily and find the information more interesting. The safety demonstration VDO could be made more entertaining and to attract the passengers and children to the safety information.

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