

**FACTORS AFFECTING SAFETY BEHAVIORS OF AIR CARGO OFFICERS,
THAI AIRWAYS INTERNATIONAL COMPANY**

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ABSTRACT

This research aimed to study factors affecting safety behaviors of air cargo officers, Thai Airways International Company. The researcher developed the questionnaire instrument to measure the factors affecting safety behaviors of air cargo officers, which include organization climate, safety climate, perceived colleagues safety, safety knowledge and safety behavior and distributed to 400 air cargo officers. The statistical analysis were frequency, percentage, mean, standard deviation, One-Way ANOVA and Pearson's Correlation. Results of the study showed that safety behavior was rated highest at a high level (mean = 3.98), then organization climate was rated at a high level (mean = 3.93), safety climate was rate at a high level (mean = 3.92) and safety knowledge was rate at a high level (mean = 3.92), the perceived colleagues safety was rated lowest at a high level (mean = 3.77). Hypothesis testing results showed that different personal factors do not affect safety behavior of air cargo. The relationship between age and safety behavior is high ($r = 0.72^*$). The results of the study showed that organization should increase safety behavior in perceived colleagues safety by monitoring and collaboration with colleagues. Supervisors and heads should support, communicate and rewards those air cargo officers who participated with safety behavior.

Keywords: Safety Behavior, Air Cargo Staffs

INTRODUCTION

Air cargo operation includes numbers of task which require physical works, work with machines and mental work. Air cargo officers perform diverse functions based on their tasks assigned, such housekeeping operation, stock control of cargoes, monitoring hazardous materials and goods, preparing and reporting of breaches in safety and security standard. They have to handle incoming and outgoing import and export document, which complies rules and regulations

Air cargo officers operate their works with physical strength, tolerate with hot temperature, and some tasks they are working with machines, equipment and vehicles. These might incur accident from work. This research focused on studying factors affecting safety behavior of air cargo officers of the national airlines.

Research Objectives

The research objective is to study factors affecting safety behaviors of air cargo officers, Thai Airways International Company.

Research Questions

What are the level of safety behavior of air cargo officers, Thai Airways International Company?

Research Hypothesis

1. Different personal factors of air cargo officers have different safety behavior.
2. There is a relationship between age and safety behavior of air cargo officers.

LITERATURE REVIEW AND THEORY

This research included concepts of safety behaviors, which included organization climate, safety climate, perceived colleagues safety, safety knowledge and safety behavior (International Civil Aviation Organization, 2015). The studies showed that there were high safety problems in inbound of airport cargo than outbound. There should be clear step, procedures and disciplines to reduce safety behaviors (Kania, Arubusman, Warpani, and Prasetya, 2017). Domino theory explained that accident is one factor in a sequence that may lead to an injury and the accidents are mostly from behavioral-based (Heinrich, 1959 and 1931). Though, there were many factors from accidents such as environment, external factors, however; human factors should be major concerned for accident.

METHODOLOGY

The researcher developed the questionnaire instrument from the safety behavior concepts which includes 5 factors as organization climate, safety climate, perceived colleagues safety, safety knowledge and safety behaviors. This concepts have been widely used in many industries and organizations since it covers overall aspects. The questionnaires consisted of 3 parts as part i) personal factors, ii) safety behavior and iii) additional suggestions. The questionnaire was validated by 3 experts and the reliability analysis was 0.93. The Likert's Scale (5 levels; 5 = highest and 1 = lowest) was used to rate the safety behavior in part ii. The statistical analysis were frequency, percentage, mean, standard deviation, One-Way ANOVA and Pearson's Correlation. The content analysis was used to summarize the answer in part iii of the questionnaires. The data collection from the air cargo officers was at Free Zone, Suvarnabhumi Airport in December, 2022.

RESULTS

The results of the questionnaires showed 1) personal factors 2) factors affecting safety behaviors of air cargo officers and 3) additional suggestion.

Table 1 *Personal Data*

Personal Factors	Particulars	F	%
Age	Less than or equal to 20 yrs.	36	9.00
	21-30 yrs.	109	27.30
	31-39 yrs.	122	30.50
	40-49 yrs.	86	21.50
	50 yrs. old and More	47	11.80
Education	Technical School	30	7.50
	Vocational Certificate or High School	80	20.0
	Vocational Diploma or Equivalents	38	9.50
	Bachelor Degree	189	47.30
	Master Degree or Higher	63	15.80
Years of Experience	Less than or equal to 5 yrs.	108	27.00
	6-10 yrs.	86	21.50
	11-15 yrs.	103	25.80
	16-20 yrs.	72	18.00
	More than or equal to 20 yrs.	31	7.80
Department	Import Department	56	14.00
	Export Department	78	19.50
	Documentation Department	106	26.50
	Lost & Found Department	73	18.30
	Others	87	21.80
Total		400	100.00

The results of the personal factors showed there are mostly respondents' ages were around 31-39 years old (=30.50%), graduated bachelor degree (=47.30%), have 11-15 years of experience (=25.80%) and working in documentation department (=26.50%).

Table 2 *Level of Safety Behavior of Air Cargo Officers*

Parts	Mean	S.D.	Meaning
<i>1. Organization Climate</i>			
1.1 You know and understand what executives expect from you	4.11	0.95	High
1.2 Organization executives listen to your opinions in important decision	3.92	1.02	High
1.3 You always communicate and report important cases to your executives	3.98	0.93	High
1.4 There is clear process and system in your organization.	3.89	0.91	High
1.5 Your executives encourage officers to create new ways of working.	3.85	0.99	High
1.6 There is a collaboration and teamwork in your organization.	3.88	0.88	High
1.7 You have been well-trained before working	3.88	0.90	High
<i>Overall Organization Climate</i>	3.93	0.94	High
<i>2. Safety Climate</i>			
2.1 Organization provides necessary training required for work safety	3.91	0.87	High
2.2 You have enough equipment for work safety	3.98	0.92	High
2.3 Managers and supervisors give importance safety over productivity	3.86	0.89	High
2.4 Standards, procedures, rules and regulations are vital parts in your work.	3.89	0.91	High
2.5 Managers and supervisors have good attitudes for safety in workplace	3.90	0.86	High
2.6 Officers participate and report to managers and supervisors regarding safety problems	3.92	0.87	High
<i>Overall Safety Climate</i>	3.92	0.89	High
<i>3. Perceived Colleagues Safety</i>			
3.1 Your colleagues participate with safety issues.	3.87	0.90	High
3.2 Your colleagues promote safety rules and regulations.	3.71	1.07	High

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3.3 Your colleagues listen to your safety suggestions.	3.70	1.04	High
3.4 Your colleagues appreciate when you comply with safety rules and regulations.	3.74	1.01	High
3.5 Your colleagues follow safety rules and regulations.	3.73	0.98	High
3.6 Your colleagues help workplace safety.	3.84	0.96	High
3.7 Your colleagues create safety in workplace.	3.83	0.97	High
<i>Overall Perceived Colleagues Safety</i>	3.77	0.98	High
 <i>4. Safety Knowledge</i>			
4.1 You understand safety principles.	4.11	0.85	High
4.2 You understand standard, steps of using safety equipment.	3.88	1.02	High
4.3 You understand occupation safety.	3.88	1.00	High
4.4 You understand how to control and reduce accidents in workplace.	3.84	0.99	High
4.5 You know dangerous objects and protect yourself when working.	3.90	0.96	High
4.6 You know whom to report when facing dangerous or unsafe incidents	3.93	0.94	High
<i>Overall Safety Knowledge</i>	3.92	0.96	High
 <i>5. Safety Behavior</i>			
5.1 You review and are aware of unsafe incidents in every step of your work.	4.05	0.92	High
5.2 You follow rules and regulations in order to be saved at all time.	3.88	0.95	High
5.3 You will not skip the safety step in order to work faster.	3.90	0.98	High
5.4 You always use safety equipment.	3.97	0.92	High
5.5 You prepare and clean workplace before working.	4.05	0.91	High
5.6 You report the safety problems to managers and supervisors.	4.05	0.93	High
<i>Overall Safety Behavior</i>	3.98	0.93	High

Results of the study showed that safety behavior was rated highest at a high level (mean = 3.98), then organization climate was rated at a high level (mean = 3.93), safety climate was rate at a high level (mean = 3.92) and safety knowledge was rate at a high level (mean = 3.92), the perceived colleauges safety was rated lowest at a high level (mean =3.77).

Part 3: Suggestion on Safety Behaviors of Air Cargo Officers, Thai Airways International Company

Safety behavior may cause from high workload. The officers may have to skip the steps in order to finish the work faster. Overload and job burnouts are also the reason that safety behavior which are not indicated in the questionnaires.

DISCUSSION AND RECOMMENDATION

The research results showed that overall safety behavior was at a high level The reasons of safety were from safety behavior (mean = 3.98). Hypothesis testing results showed that different personal factors do not affect safety behavior of air cargo. The relationship of the study showed that there was a relationship between age and sfety behavior. Safety behavior and safety knowledge for aviation careers are vital (Maneechaeye and Potipiroon, 2022). The future research is possible that other factors such as training, working environment and communication should be studied (Aumnuaiworachai, Huangsuwan, Noitonglek, 2022).

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