

## Arrest Warrant Alert System (AWAS)

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### Abstract

The research on the Arrest Warrant Alert System (AWAS) aims to 1) study the possibility of using the Arrest Warrant Alert System to arrest the offenders, 2) survey the users' acceptance through Technology Acceptance Model, and 3) propose the guidelines for developing the efficiency of the Arrest Warrant Alert System to track fleeing offenders.

The researcher used the following mixed methods. First, the researcher conducted in-depth interviews with three authorities who approved the use of the Arrest Warrant Alert System in the investigation work: a police station administrator, a technology and information administrator of the Royal Thai Police, and an administrator of the Royal Thai Police. Second, the researcher surveyed the users' acceptance of Technology Acceptance Model by using the questionnaires with 54 investigation officers.

The research results found that the authorities approving use of the Arrest Warrant Alert System in the investigation work expressed the opinions that the highest-level administrators should have in place the clear and continuous policy. If the administrators wanted to order the investigation officers to do anything, they should determine the awards and penalty to enable the investigation officers to efficiently comply with the order. As for the analytical results of the investigation officers' acceptance, the researcher found that the police officers thought that the Arrest Warrant Alert System was very beneficial to the operation at a high level ( $\bar{X}=3.78$ , S.D.=0.51). The ease of use of the Arrest Warrant Alert System was at a high level ( $\bar{X}=3.52$ , S.D.=0.43). The police officers had good attitudes toward the system at a high level ( $\bar{X}=3.61$ , S.D.=0.19). The police officers intended to use the Arrest Warrant Alert System at a high level ( $\bar{X}=3.87$ , S.D.=0.58). However, the system acceptance of the police officers aged over 40 was significantly less than that of the police officers aged below 40.

**Keywords:** *Arrest Warrant, Alert System, Royal Thai Police, social security number*

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### 1. Introduction

There are 152,148 arrest warrants remaining in the Royal Thai Police Database (Central Information Technology Centre, Royal Thai Police, 2016). Within this, it was found that the tracking of a suspect's workplace via social security number was the most successful factor leading to the arrests (Bhuridej, 2014). The researcher therefore studied the possibility of using the Alert System to arrest the offenders. This research surveyed the users' acceptance of Technology Acceptance Model (Davis, 1989) to determine the viability of the Arrest Warrant Alert System and to find ways in which its efficiency in tracking the fleeing offenders can be increased.

### 2. Objectives

- 1) To study the possibility of using the Arrest Warrant Alert System to arrest the offenders under the arrest warrant.
- 2) To survey the users' acceptance of the Technology Acceptance Model.
- 3) To propose the guidelines for developing the efficiency of the Arrest Warrant Alert System to track fleeing offenders.

### 3. Methods

The researcher used the mixed method by testing at the administrator level and the operation officers' level as follows:

#### 3.1 The administrator level

The researcher conducted in-depth interviews with three authorities who approved the use of the Arrest Warrant Alert System in the investigation work: a police station administrator, a technology and information administrator of the Royal Thai Police, and an administrator of the Royal Thai Police.

#### 3.2 Operation officers' level

The researcher surveyed the users' acceptance of Technology Acceptance Model by using questionnaires. Investigation officers participating in the evaluation consisted of commissioned police officers and non-commissioned police officers. The researcher explained and demonstrated the function of the Arrest Warrant Alert System to the evaluators and ordered both groups to use the experimental Arrest Warrant Alert System through the smartphone to predict the place where the offenders might hide and evaluate the system acceptance. The acceptance scores were as follows:

Level	Average Score	Meaning
5	4.21 – 5.00	Highest
4	3.41 – 4.20	High
3	2.61 – 3.40	Medium
2	1.81 – 2.60	Low
1	1.00 – 1.80	Lowest

### 4. Results

The Arrest Warrant Alert System developed by the research team of Police Colonel Dr. Jirabhop Bhuridej, Superintendent 1, Suppression Division connects the information on the social security registration with the arrest information remaining in the system of the Royal Thai Police, and alerts the police station about the place where the offenders go to work in the responsible areas of the police stations. The users or investigation officers wait for the results of alerting the places where the offenders flee to work, leading to the arrest of the offenders. The researcher would like to propose the research results divided in accordance with three objectives as follows:

#### 4.1 The possibility of using the Arrest Warrant Alert System to arrest the offenders

According to the interview results, the police station administrator expressed the opinions that the Arrest Warrant Alert System is beneficial to the investigation, the police station administrator is pleased to use the Arrest Warrant Alert System in the investigation work in his police station and he orders the investigation officers to immediately use the mentioned system in the investigation work. The police station administrator mentioned the system as follows:

“I can order the investigation officers to use the system in accordance with the superintendents' policy. I think that the Arrest Warrant Alert System is especially beneficial to the investigation officers who do not have the experience in the investigation because they can use the system to search the information”.

(Police station administrator)

The police station administrator added that, despite the difficulties, the police officers are pleased to comply with the high-level chiefs' orders. For example, in 2014, the investigation officers in each police station were ordered to compile the arrest warrants and ask for all new arrest warrants from the court and send them to the Command and Control Operations Center. They have to examine monthly whether the offenders are arrested or whether the arrest warrants expire and whether the offenders pass away because they have to update the information in the system. Although the mentioned order increases the burdens to

the police officers, the investigation officers are pleased to do so because it is beneficial to the Royal Thai Police.

Next, the researcher interviewed the technology and information administrator of the Royal Thai Police whose duties are to supervise the central information system of the Royal Thai Police and Police Information System. After the researcher demonstrated the experimental Arrest Warrant Alert System to the technology and information administrator of the Royal Thai Police, the interviewee said that the Arrest Warrant Alert System is the Quality Alert System and should be considerably used in the Royal Thai Police. The administrator expressed the opinions as follows:

“To order the investigation officers to use any systems, it is necessary to think that the investigation officers are users so the users do not have to complete the information. We know that several investigation officers are old and do not want to use any technology. The investigation officers only want the reports on the place of arrest. They do not want to complete and search the information. This system indicates where the offenders hide. After that, the police officers in each area are ordered to arrest the offenders. This system is very beneficial to the investigation officers. The most updated arrest information of the Royal Thai Police is the information of the Command and Control Operations Center not the information of the Criminal Registration Division”.

(The technology and information administrator of the Royal Thai Police)

According to the recommendations of the mentioned administrators, the researcher selected to interview a high-level administrator of the Royal Thai Police, initiating use of Command and Control Operations Center instead of the old warrant database system of the Royal Thai Police. After the researcher introduced the administrator of the Royal Thai Police to The Arrest Warrant Alert System, the administrator tried out the system and said that The Arrest Warrant Alert System is a good system which utilizes the information on the social security registration to search the offenders.

## 4.2 The users' acceptance of Technology Acceptance Model

After the system introduction and try-out with 54 investigation officers, the researcher surveyed the users' acceptance of Technology Acceptance Model by using questionnaires. The information on the questionnaires was processed as follows:

### 4.2.1 Basic information

**Table 1** Gender

Gender	Frequency	Percentage
Male	53	98.14
Female	1	1.86
<b>Total</b>	<b>54</b>	<b>100.00</b>

According to Table 1, there were 54 respondents. The researcher found that almost all of the investigation officers were male. There was only one female police officer who performed the administrative duties.

**Table 2** Age

Age	Frequency	Percentage
20-29	10	18.52
30-39	13	24.07
40-49	19	35.19
50 -60	12	22.22
<b>Total</b>	<b>54</b>	<b>100.00</b>

According to Table 2, 35.19% of the investigation officers were 40-49 years old. Twenty-four point zero seven percent of the investigation officers were 30-39 years old. Twenty-two point two two percent of the investigation officers were 50-60 years old. No police officers were below 20 years old.

**Table 3** Rank

Rank	Frequency	Percentage
Inspectors	2	3.70
Deputy inspectors	6	11.11
Non-commissioned police officers	46	85.19
<b>Total</b>	<b>54</b>	<b>100.00</b>

According to Table 3, 85.19% of the investigation officers were non-commissioned police officers. Eleven point one one percent of the investigation officers were deputy inspectors. Three point seven zero percent of the investigation officers were inspectors.

**4.2.2 The analytical results of the users' acceptance of Technology Acceptance Model**

According to the analytical results of the investigation officers' acceptance, the researcher found that most of the police officers were satisfied to learn and try out the system:

**Table 4** Technology Acceptance Model

Technology Acceptance	$\bar{X}$	S.D.	Mean
The Arrest Warrant Alert System is beneficial to the operation	3.78	0.51	High
Ease of use of the Arrest Warrant Alert System	3.52	0.43	High
The system users had good attitudes toward the system	3.61	0.19	High
The users intended to use the Arrest Warrant Alert System	3.87	0.58	High

According to Table 4, the analytical results of the investigation officers' acceptance were as follows: After considering each aspect, the researcher found that the police officers thought that the Arrest Warrant Alert System is beneficial to the operation at a high level ( $\bar{X}$ =3.78, S.D.=0.51). Ease of use of the Arrest Warrant Alert System was at a high level ( $\bar{X}$ =3.52, S.D.=0.43). The system users had good attitudes toward the system at a high level ( $\bar{X}$ =3.61, S.D.=0.19). The users intended to use the Arrest Warrant Alert System at a high level ( $\bar{X}$ =3.87, S.D.=0.58).

According to difference in system acceptance among different age groups, the researcher found that the system acceptance of the police officers aged over 40 was significantly different from that of the police officers aged below 40 at the level of .05 as follows:

**Table 5** Technology Acceptance Model (Age)

Technology Acceptance	Age	N	$\bar{X}$	SD	T	p
• The Arrest Warrant Alert System is beneficial to the operation	A <40	23	4.16	0.64	4.11	0.00*
	A ≥40	31	3.50	0.50		
• Ease of use of the Arrest Warrant Alert System	A <40	23	3.87	0.57	4.81	0.00*
	A ≥40	31	3.26	0.25		
• The system users had good attitudes toward the system	A <40	23	4.02	0.91	3.43	0.00*
	A ≥40	31	3.30	0.64		
• The Arrest Warrant Alert System is beneficial to the operation	A <40	23	4.13	0.63	3.08	0.00*
	A ≥40	31	3.68	0.46		

\*p<0.05

According to Table 5, the researcher found that the system acceptance of 23 police officers aged below 40 was significantly different from that of 31 police officers aged 40 and above at the level of .05 in every aspect.

**Table 6** Technology Acceptance Model (Rank)

Technology Acceptance	Rank	N	$\bar{X}$	SD	t	p
• The Arrest Warrant Alert System is beneficial to the operation	Non-commissioned	46	3.74	0.68	-1.53	0.15
	Commissioned	8	4.00	0.38		
• Ease of use of the Arrest Warrant Alert System	Non-commissioned	46	3.42	0.48	-3.59	0.00*
	Commissioned	8	4.06	0.35		
• The system users had good attitudes toward the system	Non-commissioned	46	3.55	0.88	-1.83	0.09
	Commissioned	8	3.94	0.48		
• The Arrest Warrant Alert System is beneficial to the operation	Non-commissioned	46	3.80	0.53	-2.08	0.04*
	Commissioned	8	4.25	0.71		

\*p<0.05

According to Table 6, the results of testing different acceptance of the commissioned police officers and the non-commissioned police officers found the followings: There was different acceptance of the ease of use of the system and intention to use the system. As for the easy use of the system, the researcher found that the commissioned police officers' acceptance ( $\bar{X}$ =4.06 S.D.=0.35) was higher than the non-commissioned police officers' acceptance ( $\bar{X}$ =3.42, S.D.=0.48). There was difference at the statistical significance level of .05. As for the intention to use the system, the researcher found that the commissioned police officers significantly and more considerably intended to use the system ( $\bar{X}$ =4.25 S.D.=0.71) than the non-commissioned police officers ( $\bar{X}$ =3.80 S.D.=0.53) at the level of .05.

#### 4.3 The guidelines for developing the efficiency of The Arrest Warrant Alert System to track the fleeing offenders

The police station administrator expressed the opinions that if people concerned want the police officers to use the system throughout the country, they should connect the mentioned system with the Command and Control Operations Center. The high-level chiefs of the Royal Thai Police have to order every police station to use the system, examine the information on the expiry, arrest of the offenders, and death of offenders. Moreover, the administrator of the Royal Thai Police expressed the following opinion:

“However, investigation is not the mathematics but the behavior of predicting where the offenders are”.

(The administrator of the Royal Thai Police)

Finally, the administrator of the Royal Thai Police said that if the highest-level administrator wants to order the investigation officers to do anything, he has to have the clear and continuous policy and determine the awards and the penalty to enable the operation officers to efficiently follow the order.

## 5. Conclusion

The research results found that the administrators approve the use of the Arrest Warrant Alert System in the investigation work. As for the possibility of using the Arrest Warrant Alert System to arrest the offenders, the researcher found that three administrators agreed with us the system to arrest the offenders. According to the survey of the users' acceptance through Technology Acceptance Model by using questionnaires, the researcher found that system acceptance was at a high level. The system acceptance of the investigation officers aged 40 or above was significantly less than that of the investigation officers aged below 40.

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