

Impacts of crime and violence in Southern provinces of Thailand on border trade

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ABSTRACT

This study aims to examine the factors of crime and violence in southern border provinces of Thailand. It also attempts to investigate other factors that affect Thailand - Malaysia border trade. The Binary Choice Model has been used to analyze the relationship on each variable. The independent variables consist of the attitude of entrepreneurs on group of crime and violence; group of social; group of economics; and group of politics, while the dependent variable is the income of entrepreneurs in Thailand - Malaysia border line. The data correlated in this study is the primary data, collected from local business units in southern border provinces of Thailand including Yala, Pattani, Songkla, and Narathiwat. The questionnaire has been collected from 400 respondents from each province aforementioned. The results of this study indicate that each variable in this model has statistical significant relationship. The results show that group of crime and violence factor, group of social factor, group of economics factor, and group of politics factor have impacted on the income of entrepreneurs in Thailand - Malaysia border line. From the analysis, it has been founded that group of crime and violence, group of social, group of economics, and group of politics are impacted on border trade.

Keywords: Crime and Violence, Binary Choice, Border Trade, Southern Provinces, Thailand

JEL Classification: P33, F14, C81

1. Introduction

Economic situation is one of the significant indicators displaying the potential of government administration in each country. The international trade is the main factor regarding the economic growth of the country. International trade can be interpreting as importing and exporting goods by means of transportation through ports, airports, and road ways. As for the case of Thailand, border trade is also one of the important factors stimulating economic growth. Thailand has border trade with neighboring countries which include Republic of the Union of Myanmar, Lao People's Democratic Republic, Kingdom of Cambodia, and Malaysia. The according trade is the activity which entrepreneurs in border line order goods from entrepreneurs in city and resell to customers or on the other hands, entrepreneurs in border line imports goods from neighbors and resell to entrepreneurs in city (Bank of Thailand, 2009).

Thailand – Malaysia border trading is the trade in southern most part of Thailand and northern most part of Malaysia. The trade covers 5 provinces of Thailand which are 1) Songkhla, 2) Pattani, 3) Yala, 4) Narathiwat, and 5) Satun. The main customhouses are including 1) Sadao Customs, 2) Padang Bezar Customs, 3) Su Ngai Kolok Customs, 4) Had Yai Customs, 5) Narathiwat Customs, and 6) Betong Customs. These customhouses have systematical management to connect Thailand – Malaysia border trade which has higher trade value more than other Thailand border trades (Ati Krusakkayawong, 2002).

Anyhow, the principal problem and obstacle affecting Thailand southern border trade is the unrest in Yala, Pattani, Narathiwat, and Songkhla which have been continuing for eight years (2004 – 2011) and have not shown any tendency of peace. Thailand has listed as number ninth out of 196 countries with high possibility of terrorized situation. Even though Thai governments have distributed 161,278 million baht of budgets to solve the unrest, the situation has not clearly eliminated from the areas. The violence have occurred more than 12,000 times from 2004 – 2011; this could be separated into 8,000 times of terrorize or 2.7 unrests per day, and 7,000 court cases of instability which could judged only 256 cases. Moreover, there were also 5,000 death and more than 8,000 wounded (Southern border news data base, 2012).

This study employs the economic research tool called the Binary Choice which factor Y will has only 2 value of either 0 or 1. The study will also use Binary Logit and Binary Probit.

2. Literature review

Ceccato and Haining (2004) studied the border crime in case study of Öresund since 1998-2001. This study is aimed to examine the factors relationship between crime and population, economic and social. The common border area using in the study is the area from building Öresund Bridge, which is the target of Long-Run Transportation investment. It leads to the changes happening from expectation to commit the different violate by generating new law breaking with higher risk. This study has focused on the describable of the change in the state before and after the construction of the Öresund Bridge by using the basic statistic and

Geographical Information Systems (GIS) Underpin Model. Therefore, the results have indicated that the level of crime is high and might make an impact to the European Union.

Kustepeli and Onel (2004) studied the relationship between the crime and economic variable. The study also explained the link of each type of crimes, obstacle factors, and other social variables of Turkey. The scope of this study has used the Granger-Causal test through Multivariate Cointegrated Analysis. This study has adapted four types of crime that described by Turkish Criminal Law which are crime against state or government administration, crime against public, crime against individual, and crime against property. This model is included four independent variables which are percent of offences solved, per-capita GDP, rates of divorce, and higher education. The results have indicated that in 1967-2004 had no cointegrated with crime against individual. However, the independent variables and three more crime variables which are crime against state or government administration, crime against public, and crime against property have long-run equilibrium relationships.

Habibullah and Baharom (2009) studied the impact of economic on crime activities. The study has used Autoregressive Distributed Lag (ARDL) to test the process of the impact of economic system on each type of crime in Malaysia in 1973-2003, by using real gross national product: Real GNP as represent of economic condition of Malaysia. Thus, the result has demonstrated that murder, rob, rape, assault, day robbery, and motor vehicle thief are related in long term effect with economic condition. Also the economic condition is the main cause to lead crime rate gets higher. Therefore, the long term strong economic condition has impacted with positive direction to murder, rape, assault, day robbery, and motor vehicle thief. Anyhow, it has impacted in negative direction to rob.

Beraduce (2010) studied the impact of economic on crime rate in Youngstown, Ohio. This study has described the trend of probability of crime in Youngstown compared to city faced the downturn of industrial sector, and city which does not have the industrial sector slowdown. Youngstown has faced the failure of economic condition. Crime rate in Youngstown is equivalent to other town that is not faced on the failure of economic condition. Therefore, a question of whether the starting of weak economic condition will affect more crime and the trend of crime will be similarly to Youngstown and other towns that faced on the failure of economic condition has come to interested. However, the towns that are not faced the failure of economic condition also similar to towns that faced on the failure of economic condition. It means that the relationship of the strong economic and crime in this study could not clearly conclude or support the hypothesis of relationship. Moreover, this study needs to focus on deeply relationship test about crime and economic condition and added more variables to specify problem.

Kwunkamol Donkwa (2554) studied the ability and trend of border trade in north east of Thailand. The purpose of this study is to know the current problems and barriers of border trade. This study has scoped on six provinces of Thailand that connected to Lao People's Democratic Republic and Kingdom of Cambodia which are Loei, Nong Khai, Nakhon Phanom, Mukdahan, Ubon Ratchathani, and Surin. The results can be separated into three main ideas. Firstly, the roles of north east border trade that impact on economic community of Thailand and the relationship of Thailand and trade countries. Secondly, the major problem and barrier of north east border trade. And thirdly, trend and

development approach of ability of trade. This study has provided three suggestions which are: 1) develop the cooperation with neighbor countries within sub-region, 2) develop the sustainable economic growth, and 3) accelerate the development of sustainable economic growth.

3. Theory

The main purpose of this study has focusing on crime and violence problem in southern province of Thailand that impact on border trade of Thailand and Malaysia. The related concepts and theories are as follows:

4.1 Crime

There are many different definitions of crime depending on the perspective. Crime is any activities that are not accord to law or can make other parties be distressed in all directions such as physical, mental, and property. Anybody who does not follow the rule will be given the punishment by the process of the court or social norms (Political Sciences Chulalongkorn University, 2011).

4.2 Cause of Crime

Crime activities or illegal activities are caused from economic, social, political, and moral or even psychology. The major causes of crime are poverty, unemployment, lost family values, working parents, poor judgment, inequity, soft state, and fear (Melkonyan, 2008).

4.3 Crime and Economic

In the current economic condition of both developed and developing countries, crime activities are shown in all economic conditions and motivated policy makers or criminology experts to focus on the prevention of crime problems. From the analysis of economic on crime rate, it has shown that crime activities or contradict behavior in society are not only depending on attitude or social value, but also depending on economic condition. This is the reason that economists focus more on both microeconomic and macroeconomic factors that impact on crime. They have attempted to understand the relationship of economic factors that impact on crime; such examples include: a) violence causes illegal activities and the regulations will affect confidence of investors, b) continuing robbery and battery will affect tourism, and c) illegal trade problem (Tulder and Velthoven, 2003).

4.4 Type of Crime

A property crime is the illegal activities or damaged activities on either personal property or public property such as a) thief, b) robbery c) motor vehicle thief, and d) arson (Anderson, 2002). A violent crime is the illegal activities or damaged activities on physical such that one uses force against other to mean harm and death. Violent crime activities are a) murder, b) rape, c) rob, d) assault, and e) bomb (Fagan, 1994).

4.5 International Trade

International trade is import and export between countries. The differences of input or natural resources and production factors or the different of geography have made all countries to have the difference ability in producing goods and services. Therefore, it is necessary for all countries to have dependence on others (Thompson, 2006).

4.6 Absolute Advantage Theory

The principal of Absolute Advantage Theory is the abilities of personal or group of people or country in terms of producing goods and services in highly quality and efficient more than other country under the same input. Adam Smith is the first person who described Absolute Advantage in term of international trade under the same input (Keller, 2009).

4.7 Comparative Advantage Theory

David Ricardo had described the theory of comparative advantage. It is the ability of producing goods of one country which has more efficient than other country. If both two countries chose to produce goods with highest efficiency and then trade with each other, it means that they will have two goods but spent only one input. The principle of comparative advantage theory is the producing ability under marginal cost and opportunity cost less than others. The theory is similar to Absolute Advantage Theory in terms of producing ability of goods and service under real cost which is less than other. Anyhow, comparative advantage is also described the ability to added value on goods and services of each country although such country can produce all goods and services. Hence, if they compare to produce all goods by themselves with import from another, it may cost them higher than import from other countries, it called benefit from trade (Das, 2009).

4.8 Heckscher and Ohlin Trade Theory

Modernized international trade theory has been developed by Heckscher and Ohlin. The new theory has explained the differences of factor endowment and factor price in each country which are the main factors of international trade. Based on the assumption of equivalent technology and same taste, each country would export the goods which they can produce the most as it would take less cost. On the other hand, they would import abbreviated goods from other country which is cheaper because their cost of production is cheaper. Therefore, the country with labor endowment will export labor intensive goods and the country with capital endowment will export capital intensive goods, in order to gain highest efficient of export (Jones, 2008).

4.9 Border Trade

Border trade is including all types of trade and service through national border, both legal and illegal. It is an activity acts by citizens or households who lives around border or the area that connect to another country. Most of the border trade is in the form of small stores, booths, and peddlers. The merchandized goods are usually daily products. The trade value is not very high (Nopparat Wongwittayapanich, et al, 2011).

4.10 Binary Choice Model

Binary choice model is the model that variable Y has only 2 values which are “1” and “0”, the dependent variable is discrete variables and qualitative variables such as “yes” or “no”, or “buy” or “not buy”, for example. Binary choice model consists of Binary Logit and Binary Probit, by using Maximum Likelihood function to estimated (Komsan Suriya, 2010).

$$y_i^* = \beta_1 + \beta_2 x_{i2} + u_i$$

$$= x_i' \beta + u_i$$

When y_i^* is unobserved. Where $y = \begin{cases} 0 \\ 1 \end{cases}$ can be observed from $y_i^* > 0$

The value could be obtained by using Marginal Effect, if the independent variable increases by 1 unit, how much the dependent variable would change. Thus, Marginal Effect of x_k affects the probability value of $y = 1$, if the value is positive, it means that the probability value of $y = 1$ will increase as x_k change, Therefore, the effect of x_k is equal to:

$$\frac{\partial P_i}{\partial x_{ik}} = \frac{\partial L(x_i', \beta)}{\partial x_{ik}} = \frac{\exp^{x_i', \beta}}{(1 + \exp^{x_i', \beta})^2} \beta_k$$

4. Methodology

The analysis of factors affecting Thailand – Malaysia border trade is using Binary Choice Model as a tool to understand the relationship between each variable. The meaning description is using Marginal Effects to explain.

The analyzed process will assign the value for Y to be either 0 or 1. The primary data of income of entrepreneurs in Thailand – Malaysia border line is used to find the mean value of all data. The equation $\bar{X} = \frac{1}{n} \sum_{i=1}^n X_i$ is employed to assign the value of variable to be either 0 or 1. Variable Y will be equal to 1 if income of entrepreneur is higher than mean value and equal to 0 if income is lower than mean.

The model used to examine the factors affecting Thailand – Malaysia border trade is applied from following equation:

$$\ln\left(\frac{p_i}{1-p_i}\right) = \ln\left(\frac{p_i}{1-p_i}\right) + \frac{e_i}{p_i(1-p_i)} = x_i' \beta + u$$

The Odd Ratio is as followed:

$$\ln\left(\frac{p_i}{1-p_i}\right) = x_i'\beta \quad \text{Where; } p \quad \text{is the probability when } y_i = 1$$

$$1-p \quad \text{is the probability when } y_i = 0$$

The Binary Choice Model can be written as following

$$y^* = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_7 + \beta_8x_8 + \beta_9x_9 + \beta_{10}x_{10} + \beta_{11}x_{11} \\ + \beta_{12}x_{12} + \beta_{13}x_{13} + \beta_{14}x_{14} + \beta_{15}x_{15} + \beta_{16}x_{16} + \beta_{17}x_{17} + \beta_{18}x_{18} + \beta_{19}x_{19} + \beta_{20}x_{20} \\ + \beta_{20}x_{20} + u$$

- where; x_1 is the attitude of entrepreneur on thief
 x_2 is the attitude of entrepreneur on robbery
 x_3 is the attitude of entrepreneur on motor vehicle theft
 x_4 is the attitude of entrepreneur on arson
 x_5 is the attitude of entrepreneur on murder
 x_6 is the attitude of entrepreneur on rape
 x_7 is the attitude of entrepreneur on rob
 x_8 is the attitude of entrepreneur on assault
 x_9 is the attitude of entrepreneur on bomb
 x_{10} is the attitude of entrepreneur on the difference of language
 x_{11} is the attitude of entrepreneur on the difference of religion and believe
 x_{12} is the attitude of entrepreneur on the difference of culture
 x_{13} is the attitude of entrepreneur on the change of currency
 x_{14} is the attitude of entrepreneur on the limited of import and export
 x_{15} is the attitude of entrepreneur on tax
 x_{16} is the attitude of entrepreneur on type of business
 x_{17} is the attitude of entrepreneur on closing custom department

- x_{18} is the attitude of entrepreneur on the change in government policy
- x_{19} is the attitude of entrepreneur on the government relationship between countries
- x_{20} is the attitude of entrepreneur on the procedure of import and export
- β is parameter
- u is error

Then, the results will be explained by analyzing the Marginal Effects which can be calculated from the following equation;

$$\frac{\partial P_i}{\partial x_{ik}} = \frac{\partial L(x'_i, \beta)}{\partial x_{ik}} = \frac{\exp^{x'_i, \beta}}{(1 + \exp^{x'_i, \beta})^2} \beta_k$$

5. Data

The data used in study is the primary data which collected from entrepreneurs in local area which are including a) Yala, b) Pattani, c) Songkla, and d) Narathiwat. The questionnaires have been collected from 400 samples from each province abovementioned by using Accidental Sampling. The questionnaires have been distributed into each province according the convenient situation with the time constraint. Besides, to know how much sampling that need for this study, this should base on the formula of Cochran (1953) as follow:

$$n = \frac{p(1-p)Z^2}{e^2}$$

- Where:
- n is number of sampling
 - P is ratio of population used in the sampling method
 - Z is confidence level determined by researcher
 - e is ratio of error

This study is assigned the ratio of population to be 0.50 at 95 percent of significance level. The error is allowed to be not higher than 5 percent (Z equals to 1.96 at 95 percent of significance level). Therefore, the number of sampling can be calculated by the following formula;

$$\begin{aligned} \text{Where } n &= \frac{(0.5)(1-0.5)(1.96)^2}{0.05^2} \\ &= 385 \text{ samples} \end{aligned}$$

Anyhow, this study has adjusted the number of sampling into 400 samples so as to make the sampling method more reliable.

6. Result

There are two main approaches to analyze the questionnaire which are a) the analysis of the general demographic information in order to know the social and economic characteristics of samples, and b) the analysis of factors affecting border trade of Thailand and Malaysia. The study has used Binary Choice Model to investigate the relationship of each group of factor which include group of crime and violence factor, group of social factor, group of economic factor, and group of politics factor. The last step is estimates the meaning by employing Marginal Effects technique.

The general demographic information of samples can be summarized in Table 1 below.

TABLE 1. The summary of general demographic information of samples

	Yala	Pattani	Songkla	Narathiwat
Gender				
Male	169	228	169	156
Female	231	172	231	244
Age				
< 30	75	112	75	127
31-40	125	80	88	102
41-50	133	146	139	102
> 51	67	62	98	69
Period in Business (Year)				
< 11	316	312	231	261
11 – 20	59	79	111	105
> 21	25	9	58	34
Education				
Under High School	73	122	63	42
High School	135	166	128	287
Diploma	95	68	87	34
Bachelors	87	30	117	34
Higher Than Bachelors	1	3	2	3
Other	9	11	3	0
Average Income per Month				
< 10,000	3	1	28	0
10,001 – 30,000	241	296	265	181
30,001 – 60,000	116	80	70	174
60,001 – 90,000	19	16	22	42
> 90,001	21	7	15	3

From table 1 above, it has shown that most of the entrepreneurs in Yala, who responded to the questionnaire are female in the number of 231 respondents (57.75%). Most of them are in the age between 41-50 years old with the number of 133 respondents (33.25%), 316 respondents (79%) are in business less than 11 years, most respondents which are 135 people (33.75%) have finished high school, and most of them which are 228 respondents (60.25%) have Average Income per Month between 10,001 – 30,000 baht. In

Pattani, most respondents which are 228 people (57%) are male, most of them are in the age between 41-50 years old with the number of 146 respondents (36.65%), 312 respondents (78%) are in business less than 11 years, most respondents which are 166 people (41.5%) have finished high school, and most of them which are 296 respondents (74%) have Average Income per Month between 10,001 – 30,000 baht. In Songkla, most respondents which are 231 people (57.75%) are female, most of them are in the age between 41-50 years old with the number of 139 respondents (34.75%), 231 respondents (57.75%) are in business less than 11 years, most respondents which are 128 people (32%) have finished high school, and most of them which are 265 respondents (66.25%) have Average Income per Month between 10,001 – 30,000 baht. In Narathiwat, most respondents which are 244 people (61%) are female, most of them are in the age of less than 30 years old with the number of 127 respondents (31.75%), 261 respondents (65.25%) are in business less than 11 years, most respondents which are 287 people (71.75%) have finished high school, and most of them which are 181 respondents (45.25 %) have Average Income per Month between 10,001 – 30,000 baht.

This study has used Binary Logit and Binary Probit to investigate the factors affecting border trade of Thailand and Malaysia and to show the relationship of each factor which are group of crime and violence factor, group of social factor, group of economic factor and group of politics factor. The estimation of Binary Logit is summarized in Table 2 and the estimation of Binary Probit is summarized in Table 3.

TABLE 2. Results of Binary Logit

Factor	Coefficient	Standard Error	b/St.Er	P[Z >z]	Mean of X
The attitude of entrepreneur on thief	.52165178	.15029143	3.471	.0005**	.24750000
The attitude of entrepreneur on robbery	-.15099302	.15396334	-.981	.3267	.25312500
The attitude of entrepreneur on motor vehicle theft	.60721237	.15989931	3.797	.0001**	.47250000
The attitude of entrepreneur on arson	-.44029708	.15921316	-2.765	.0057**	.44125000
The attitude of entrepreneur on murder	.40993396	.17861566	2.295	.0217*	.65875000
The attitude of entrepreneur on rape	-.14886443	.18423458	-.808	.4191	.67562500
The attitude of entrepreneur on rob	.09774625	.18006381	.543	.5872	.71687500
The attitude of entrepreneur on assault	.20916110	.14539256	1.439	.1503	.72562500
The attitude of entrepreneur on bomb	-.28508460	.13793182	-2.067	.0387*	.25625000
The attitude of entrepreneur on the difference of language	-.00082739	.15473205	-.005	.9957	.74062500
The attitude of entrepreneur on the difference of religion and believe	.40060858	.14061633	2.849	.0044**	.36312500
The attitude of entrepreneur on the difference of culture	-.40739259	.15656399	-2.602	.0093**	.63000000
The attitude of entrepreneur on the change of currency	-.10521172	.19370650	-.543	.5870	.49937500
The attitude of entrepreneur on the limited of import and export	.28580514	.19824029	1.442	.1494	.49187500
The attitude of entrepreneur on tax	-.36701483	.15630411	-2.348	.0189*	.60000000
The attitude of entrepreneur on type of	.08505129	.14348011	.593	.5533	.64875000

Factor	Coefficient	Standard Error	b/St.Er	P[Z >z]	Mean of X
business					
The attitude of entrepreneur on closing custom department	-.33860054	.17222336	-1.966	.0493*	.30312500
The attitude of entrepreneur on the change in government policy	.57820174	.17810532	3.246	.0012**	.31687500
The attitude of entrepreneur on the government relationship between countries	-.35525087	.17946693	-1.979	.0478*	.37187500
The attitude of entrepreneur on the procedure of import and export	.38897793	.15814914	2.460	.0139*	.33312500

(** = significant $\alpha = 0.05$ or confidence level = 95%, * = significant $\alpha = 0.1$ or confidence level = 90%)

TABLE 3. Results of Binary Probit

Factor	Coefficient	Standard Error	b/St.Er	P[Z >z]	Mean of X
The attitude of entrepreneur on thief	.32023750	.09184479	3.487	.0005**	.24750000
The attitude of entrepreneur on robbery	-.09466126	.09384843	-1.009	.3131	.25312500
The attitude of entrepreneur on motor vehicle theft	.36310964	.09596776	3.784	.0002**	.47250000
The attitude of entrepreneur on arson	-.26149919	.09611494	-2.721	.0065**	.44125000
The attitude of entrepreneur on murder	.24590228	.10708052	2.296	.0217*	.65875000
The attitude of entrepreneur on rape	-.08605754	.11052680	-.779	.4362	.67562500
The attitude of entrepreneur on Rob	.05978178	.10775908	.555	.5791	.71687500
The attitude of entrepreneur on assault	.12086132	.08675545	1.393	.1636	.72562500
The attitude of entrepreneur on bomb	-.17278242	.08304177	-2.081	.0375*	.25625000
The attitude of entrepreneur on the difference of language	.00259426	.09238292	.028	.9776	.74062500
The attitude of entrepreneur on the difference of religion and believe	.23694028	.08480697	2.794	.0052**	.36312500
The attitude of entrepreneur on the difference of culture	-.24375659	.09390833	-2.596	.0094**	.63000000
The attitude of entrepreneur on the change of currency	-.06070682	.11739243	-.517	.6051	.49937500
The attitude of entrepreneur on the limited of import and export	.16999138	.12038284	1.412	.1579	.49187500
The attitude of entrepreneur on tax	-.21749033	.09369735	-2.321	.0203*	.60000000
The attitude of entrepreneur on type of business	.04960570	.08629341	.575	.5654	.64875000
The attitude of entrepreneur on closing custom department	-.19903450	.10291744	-1.934	.0531*	.30312500
The attitude of entrepreneur on the change in government policy	.34831871	.10668134	3.265	.0011**	.31687500
The attitude of entrepreneur on the government relationship between countries	-.22446767	.10933504	-2.053	.0401*	.37187500
The attitude of entrepreneur on the procedure of import and export	.23804446	.09690547	2.456	.0140*	.33312500

(** = significant $\alpha = 0.05$ or confidence level = 95%, * = significant $\alpha = 0.1$ or confidence level = 90%)

After the comparison between Binary Logit and Binary Probit, it has found that the value of AIC and BIC of Binary Logit are shown to be better model than Binary Probit. The estimation of Marginal Effect of Binary Logit is summarized in Table 4.

TABLE 4. Results of Marginal Effects

Factor	Coefficient	Standard Error	b/St.Er.	P[Z >z]	Elasticity
The attitude of entrepreneur on thief	.09935598	.03047529	3.260	.0011**	.07851847
The attitude of entrepreneur on motor vehicle theft	.12794749	.03368011	3.799	.0001**	.19303505
The attitude of entrepreneur on arson	-.09701394	.03242283	-2.992	.0028**	-.13668518
The attitude of entrepreneur on murder	.08452803	.03301681	2.560	.0105*	.17779679
The attitude of entrepreneur on bomb	-.04625814	.02705716	-1.710	.0873*	-.03784902
The attitude of entrepreneur on the difference of religion and believe	.09148135	.03026860	3.022	.0025**	.10606969
The attitude of entrepreneur on the difference of culture	-.07774317	.03248717	-2.393	.0167*	-.15638871
The attitude of entrepreneur on tax	-.05777129	.03135377	-1.843	.0654*	-.11067918
The attitude of entrepreneur on closing custom department	-.06539209	.03485941	-1.876	.0607*	-.06329210
The attitude of entrepreneur on the change in government policy	.13003857	.04016221	3.238	.0012**	.13157177
The attitude of entrepreneur on the government relationship between countries	-.06327478	.03685242	-1.717	.0860*	-.07513291
The attitude of entrepreneur on the procedure of import and export	.08240764	.03486680	2.363	.0181*	.08765512

(** = significant $\alpha = 0.05$ or confidence level = 95%, * = significant $\alpha = 0.1$ or confidence level = 90%)

7. Discussion

The study of Impacts of Crime and Violence in Southern Provinces of Thailand on Border Trade has found that the factor impacted on border trade are including arson, rape, bomb, the difference of culture, tax, closing custom department and government relationship between countries. They are impacted on border trade in the negative direction. It means if arson, rape, bomb, the difference of culture, tax, closing custom department and government relationship between countries are increased, the entrepreneurs may think that it would impact their trade and thus their income would decrease if the according violence keep rising. Besides, there is also the factors impacted border trade in the positive way. The positive factors are including murder, motor vehicle theft, thief, the differences of religion and believe, the change in government policy, and the procedure of import and export. These factors will move in the same direction with trade. The entrepreneurs might think that if these factors are increasing, their income from trade would also increase.

For the future study, researcher should try to study impact on entrepreneurs who live outside the provinces of unrest but they still need to transport their merchandise goods through those unrest areas via land, air, and water transport. The study of Malaysian entrepreneurs' attitude is also interesting to investigate in order to compare with Thai entrepreneurs. Moreover, the future study should add other factors that might increase the

reliability of the study. The researcher should also make a well plan to collect the questionnaire since the entrepreneurs in the unrest areas are suspicious about their safety if they have cooperate with the government to give some useful information. Lastly, the entrepreneurs in the areas are communicating with Melayu language, therefore the researcher should be able to communicate with them.

8. Conclusion

The study of Impacts of Crime and Violence in Southern Provinces of Thailand on Border Trade is aimed to examine the factor of crime and violence in southern border provinces of Thailand. It also attempts to investigate other factors that affect Thailand - Malaysia border trade. The Binary Choice Model has been used to analyze the relationship on each variable. The data correlated in this study is the primary data, total collected of 1,600 respondents from local business area in southern border provinces of Thailand which included Yala, Pattani, Songkla, and Narathiwat. From the analysis, it has founded that at the significant level of 0.05, the attitude of entrepreneur on Thief, the attitude of entrepreneur on Motor vehicle theft, the attitude of entrepreneur on Arson, the attitude of entrepreneur on the difference of Religion and Believe, the attitude of entrepreneur on the difference of culture, and the attitude of entrepreneur on the change in government policy. Moreover, at the significant level of 0.1, the attitude of entrepreneur on Bomb, the attitude of entrepreneur on murder, the attitude of entrepreneur on tax, the attitude of entrepreneur on closing custom department, the attitude of entrepreneur on the government relationship between countries, and the attitude of entrepreneur on the procedure of import and export have impacts on Thailand border trade.

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