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Effectiveness on Cross Border Trades Between Thailand, Lao Pdr, Vietnam and China

Pichit Prapinit[1], Patchateeya Boonyarit[2], Radasa Netsangsee[3], Mustakim Melan[4], Mohamad Ghozali Hassan[5]

[1,2,3,] *Loei Rajabhat University (LRU), Loei - Chiang Kan, loei,42000, Thailand*
[4,5]*Disaster Management Institute (DMI), School of Technology Management and Logistics, College of Business, Universiti Utara Malaysia, 06010, Sintok, Kedah*
[1,2,3]logistic.border.lru@gmail.com
[4]mustakim@uum.edu.my
[5]ghozali@uum.edu.my

Abstract - **This study investigates on the effectiveness of present cross border trades at Loei District checkpoint of North East in Thailand to Lao PDR, Vietnam and China. It also examines on the regional economic connectivity of supply chain in Thailand and neighboring countries especially for Greater Mekong Sub-Region (GMS) Programme. It also explores on the readiness of road infrastructure, cross border facilities, customs, regulations, usage of technology and other obligations to the wider scope. It also focuses on the trading of retail goods for household consumption and wholesale merchandises. This is a quantitative research and the surveys were conducted among 300 respondents which include transporters, entrepreneurs, government, regulatory bodies and other stakeholders. The findings of the research revealed on the certain actions need to be taken for future improvement at border checkpoint. This includes on improvement on the of customs inspection, readiness of the infrastructure, suitability in rules and regulations and the understanding of usage of technologies in the department of Immigration, Customs, Quarantine and Security (ICQS) at cross border areas.**

Keywords - *Cross border, Thailand, Laos, Vietnam, China Economic Connectivity, Consumer Goods Supply chain and ICQS.*

1. Introduction

Cross-border trade defines as all forms of trade or exchange of goods transacted through border checkpoints by both sides of local people or traders, who reside in provinces or communities along the border, provinces share a common border with neighboring countries. The Greater Mekong Sub-Region (GMS) and The Economic Cooperation Program Strategic Framework 2012–2022 are jointly established by six countries namely Thailand, Myanmar, Laos, Cambodia, Vietnam and Southern China. It was developed by the Asian Development Bank in 2011. The purpose of Asean Economic Community (AEC) is to establish the activities in the Greater Mekong Sub-Region and Strategic framework as for Economic corridors. The three significant economic corridors include the North-South Economic, East-West and Southern Economic Corridors. The cooperation is fostered by the commencement of the ASEAN Economic Community by the end of the year 2022. Besides, this group of countries has high potential for economic growth, particularly the countries on the Indochina Peninsular namely Cambodia, Laos, Myanmar and Vietnam generally known as CLMV [1]. The Greater Mekong Sub-Region (GMS) in 2012 was extended to China as new partner in trading activities. This will result on the improvement of road transportation from Loei Province to the Northern provinces of Laos through to Southern China and Vietnam. The routes have the potential to be developed into the North-East Corridor beginning from Thai district in Loei to Sayabouly province's Paklay city, Luang Prabang province and Xiangkhouang Province in Laos to Hanoi and Southern China.

2. Problem Statement

Loei is one of the Thai provinces that significant for the country in terms of the Thai-Lao trade, cross-border checkpoint or transit of goods trades. The trade volumes mostly on consumer goods and services were increased year on year at this area. The consumers in Laos and Vietnam have very good commitment and preferences towards the Thai's goods and services. Products from Thailand have better quality and accepted by neighboring countries which therefore a better opportunity at the border of North East Thailand for export their goods to Laos, Vietnam and China using Loei's checkpoint. Most of the traders faced the difficulties on the delays movement while crossing at this checkpoint. Problems and difficulties on language in daily communication were occurring during the trading activities but the flow of goods still moving with the low speed. [2] refers on the demand for logistics management studies in North Eastern Thailand. In general observation shows towards the problems on the readiness in road infrastructure, cross border facilities, customs, regulations, usage of technology and other obligations. It is the new economic with great opportunities in GMS areas are required to be investigated to ensure better flows in transaction activities. The detail of the areas shows in Diagram 1.

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Diagram 1*. The study on trade route (Pichit, 2015) and The Royal Thai Survey Department (2012)*

3. Literature review

The Greater Mekong Sub-Region (GMS) was established for the purpose of higher quality employment in Asia and manages to establish on economic, financial, social energy, environmental, infrastructure and governance indicators [17]. The strategic framework for the next 10 years of the GMS Program is built on the substantial promotes the regional integration and encourages broader process within the ASEAN and the Asia region connecting five developing in ASEAN countries, namely Cambodia, Laos, Myanmar, Vietnam and Thailand, [1] revealed on the CLMV countries catch up with the older ASEAN members in terms of income level. [3] assessing socioeconomic impacts of transport infrastructure projects in the Greater Mekong Subregion, contributing factors to cross-border trade expansion between Thailand and four neighboring countries, Cambodia, Lao PDR, Myanmar and Vietnam have been studied. In 2017 the Sub-Region is growing   faster as the GDP growth rate at 6.4%, GDP at US$3.1 trillion and trading was at US$444 billion and population at 340 million. Asean Economic Cooperation Economic and this project explored on economic forecasting is targeted to expand at 2.3% in 2020 and 3.3% in 2021 and Thai exports dropped 4.5% while imports fell at 4.3% year-on-year. The economy growth is to expand only 2.3% in 2020 and 3.3% in 2021 due to coronavirus outbreak [18]. They should be involved with cooperation, arrangement on daily cross-border movement, labor the border economic zone concept with a wide range of capacity building schemes and address the common issues. [4] refers on the effectiveness on monitoring Method in transport Industry which relate to the daily movements in the border checkpoint.

[5] reveals Community of Practice in Philosophy for Management concept is constantly striving to improve its processes, promotes discipline and standardization and believes the processes in place for solving problems are more valuable than the solutions themselves. [4] refers on the demand for logistics management studies which include the skill and language training at border areas. [6] refers as energy security in terms of economic and environmental. In The effectiveness in cross border to improve the collaboration for both public and private sectors towards the logistics performance, transport quality, maintenance and development of infrastructure and encourage for a competitive environment. [15] proposed on the other hand he proposed skills, education by both public & private sector simplify on export & import procedures. He discusses on

Human Resource Development, Law & Regulations, Business ethics, Public Sector participation, expedite on customs clearance procedures and systemized on the shippers and Logistics Service Providers.

[17] discussed on ASEAN Logistics Network Map and Keys for Success in Attracting Investment on Capacity Building for Sharing Success Factors for improvement of Investment Environment. [7] proposed on initiatives to prolong aging assets life cycle. This is may be applicable and better integration or working as single window entrance with neighboring countries. It enables to expedite the movements especially for the infrastructure and customs process. Schedule meeting on related stakeholders need to be in place in order to improve on the effectiveness of cross border movements.   This includes with Cambodia Freight Forwarder Association (CAMFFA), Lao PDR, Lao National Chamber of Commerce and Industry (LNCCI). Lao International Freight Forwarders Association(LIFFA), Myanmar International Freight Forwarders' Association(MIFFA), Union of Myanmar Federation of Chambers of Commerce & Industry(UMFCCI), Myanmar Custom Brokers Association (MCBA), Thai National Shippers' Council(TNSC), Thai Federation on Logistics(TFL) Vietnam Chambers of Commerce and Industry(VCCI) and China Commerce. [15] revealed on The Trade Supply Chain Central North of Thailand- Laos PDR- Social Republic of Vietnam. These are the stakeholders as suggested to play the important mechanism for future improvement in cross border industry especially at North East of Thailand.

[8] discusses on the Measuring Supply Chain Performance and businesses wish to sell and source abroad. [9] and [10] discusses on the adoption of business intelligence and technological, individual and supply chain efficiency and considering more benefit from trade facilitation measures such as making information available through the Internet and the use of international standards. [19] referred on Thailand outlooks on the four abovementioned trends illustrate the growing demand for trade facilitation; such facilitation also benefits from new tools available due to technological advances. [11] discusses on the relationship between logistical support factors and effective contract management. Effectiveness based Agreement on Trade Facilitation implementation. UNCTAD (WTO, 2015), estimated to be the most significant aspect of trade facilitation that enhances trade flows. These results are especially valid for manufactured goods [20]. The World Customs Organization (WCO, 2014) notes the specific transparency and predictability enhancing provisions on the effective movement of goods. Agreements on Trade Facilitation measures, among others, are particularly beneficial to the business sector. National Economic and Social Development Board, Office of the Prime Minister Thailand (2015) refers on National Economic and Social Development Plan (2012-2016). Other provisions target the reduction of formalities and documentation requirements, fees and charges, reduction time on Customs inspection, transit. Source: UNCTAD (WTO, 2015).

The value of the export of Thai-made consumer of goods through the Thali checkpoint has constantly risen due to the cheaper price and better quality [15]. The threats in this area are the uncertainty rules and regulations, laws and import and export laws, road infrastructure, the usage of technology and the speed of customs department as well as other related

problems in the ICQS offices. [9], [12], and [13] revealed on the factors influencing the information and communication technology (ICT) of third party logistics.

4. Research Methodology

The research employed a qualitative approach by conducting a survey on the economic population and the samples are about 400 respondents. In depth interviews were established by looking at conditions of the movement and respondents in transporting goods from Loei's Thali district to Laos, Vietnam and China. Likert scale 1-5 is used to integrate between low and the highest levels on their opinion. The survey was carried out to understand the actual current conditions of the effectiveness of consumer goods supply chain and cross border activities. The evaluation model in economic and trade facilitation are the external process which partly enhance the effectiveness of the supply chain management. It based on suitable trade facilitation, amount of time and cost required for the reduction of the transportation costs [8]. The study suggests four (4) objectives in ensuring the effectiveness of supply chain performance at cross border activities. The objectives of the study are as follows;

a. To measure the real speed for customs inspection
b. To investigate on the readiness of the infrastructure for speedy deliveries
c. To examine on the suitability of rules and regulations in business operations
d. To explore on the understanding of usage of technologies such as e-customs and e-business

Theoretical Framework and Hypothesis

The literature review allows the formulation of conceptual framework with hypotheses, and shows the relationship between the independent variables (IV) and dependent variable (DV). The proposed framework has developed in Four (4) as the main indicators (IV) towards the effectiveness of border checkpoint (DV). Figure 1 refers to the Theoretical Framework as proposed in the study.
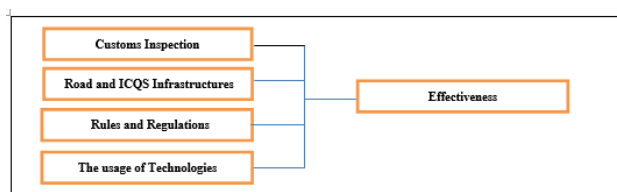

Figure 1: Proposed Research Framework

The following hypotheses are proposed:

H1: There is a significant relationship between customs inspection and the effectiveness of border trade

H2: There is a significant relationship between infrastructure and the effectiveness of border trade

H3: There is a significant relationship between Rules and Regulation and the effectiveness of border trade

H4: There is a significant relationship between technology and the effectiveness of border trade

5. Findings

Demographic of Respondents

The respondents' profile is a descriptive analysis that deals with all descriptions made by the respondents in the questionnaires. The demographic profile of the study includes gender, age, races and job status. Total respondent is 300 and divided into in four countries and based on the maximum data obtained during the survey. Thailand personnel had contributed to the highest number of respondents. The surveys were conducted at the checkpoint of Loei Thailand and Lao PDR. This research focuses on the effectiveness of border trade activities at Loei North East of Thailand which involved several respondents. Table 1 and 2, refer to the demographic respondents for the purpose of the study.

Table 1: Statistics of Respondents

No	Characteristics	Number	Relative frequency (%)
a	Transporters /importers/ exporters	75	25
b	Entrepreneurs/SMI, Business entities	75	25
c	Government and regulatory bodies	75	25
d	Other stakeholders/researchers/ visitors	75	25
	Total	**300**	**100**

Note; N - 300; Are based on the major section contributing to the groups dealing with daily activities at border check point

Table 2: Demographic Respondents

Demographic	Category	Frequency	Percentage (%)
Gender	Male	178	59.3
	Female	122	40.7
Age	18-20 years	65	21.6
	21-23 years	82	27.4
	23-25 years	72	24.0
	25 years and above	81	27,0
Race	Thailand	100	33.3
	Lao PDR	75	25.0
	Chinese	65	21.7
	Vietnamese	60	20.0
Job status	Importer, exporter, entrepreneurs	85	28.3
	Transporters	75	25.0
	Government and regulatory bodies	65	21.7
	Other stakeholders	75	25.0

Note* N=300

The number of female respondents (122) was less than male (178). It represented a ratio of 40.7% (female) and 59.3% (male) respectively.

Reliability Analysis

The function of the reliability is to measure the stability and overall performance of the system combined from the variables. In Reliability test, the Cronbach's Alpha is a measure of internal consistency or considered to be measure of scale reliability. Table 3, refers the results of the Cronbach's Alpha on the reliability of the instrument and internal consistency coefficient is between scores ranging from 0.00 to 1.00.

Table 3: Reliability Statistics of Variables

Variables	Item	Cronbach Alpha
Customs Inspection	5	0.705
Road and ICQS Infrastructure	4	0.643
Rules and Regulations	5	0.719
Usage of Technology	5	0.847

The reliability of the questionnaire was using Cronbach's coefficient alpha calculated to test the reliability of the responses obtained from the respondents. Cronbach's alpha of .70 and above is good, .80 and above is better, and .90 and above is best [16]. However, if reliability values of 0.60 to 0.70 are still acceptable in exploratory research. [14]. Most of the variables are accepted in this study.

Multiple Regression Results

A Multiple Linear Regression was performed to determine the best set of predictor variable in predicting effectiveness of border checkpoint. Table 4, refers to Multiple Regression Results for the purpose of study.

Table 4: Multiple Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.272	.238		1.141	.255
	Customs Inspection	.204	.054	.212	3.754	.000
	Road and ICQS Infrastructure	.116	.054	.116	2.149	.032
	Rules and Regulations	.220	.054	.223	4.043	.000
	Usage of Technology	.212	.051	.224	4.180	.000

Based on Table 3, all predictor variables which are usage of technology (p=0.000 < alpha), Infrastructure (p=0.032 < alpha=0.05), Rules and Regulation (p=0.000), and Customs inspection (p= 0.000 < alpha) were found to be significant in explaining on the effectiveness of border trade at ICQS checkpoint. Meanwhile, there are no result shows any variables are not significance as well.

Summary of Hypotheses

All hypotheses were supported (H1, H2, H3, H4) and have significant and influence positively towards the effectiveness of border trade. Besides, usage of technology makes the strongest contribution and followed by rules regulation, infrastructure and customs inspection to attract on the effectiveness of border trade in Loei Checkpoint. Table 5 refers to the Model Summary of Hypotheses Testing for the final result of the study.

Table 5: Model Summary

Hypotheses Testing	Results
H1: There is a significant relationship between customs inspection and effectiveness of border trade	Supported
H2: There is a significant relationship between infrastructure and effectiveness of border trade	Supported
H3: There is a significant relationship between Rules and Regulation and effectiveness of border trade	Supported
H4: There is a significant relationship between technology and effectiveness of border trade	Supported

6. Conclusion

The purpose of the study is to investigate on the effectives of cross border in Thailand and neighboring countries. The study is based on the action which initiated by the government towards the GMS. The study also integrates on the effectiveness of the border movements and to ensure smooth transaction in trading activities. At the same time, it will improve in business opportunities and indirectly to increase the GDP and GNP for the local products. The study was only carried out in Thailand and looking to the various angle for improvement for internal benefits. It also suggests on future foreign departmental meeting with the stakeholders involved for the purpose of improvement at cross border checkpoints. Finally, the research revealed on the specific actions is needed to be taken for future improvement. These include in the expediting on the customs process, improve on road infrastructure and facilitate the rules and regulations with effective ways. Other than that the technologies on e-customs also suggested to be improved and integrate with the most modern technologies in the other three countries.

Acknowlegments

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