

## Supporting Factors Affecting Area Development at the Special Economic Zone Border, Mukdahan Province

Natnaporn Eaknarajindawat

Suan Sunandha Rajabhat University, natnaporn.ae@ssru.ac.th

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### ABSTRACT

Province of Mukdahan has been considered to be a Special Economic Development Zone due to its location being one of Thailand's major trade border. This leads to the intention to study supporting factors affecting the development of the Special Economic Zone area by collecting data from 20 crucial participants and 400 sample groups, adopting the principle of 20 times ratio of the controlled experiment and the method of selecting target samples according to portion. Results found, after specifically considering the factors that have direct effect on the development of the Special Economic Zone area of Mukdahan province, that public participation by the people alone will have direct effect on the development of the Special Economic Zone area of Mukdahan province at 0.67 percent while tools support the effect on Special Economic Zone and the management system has indirect effect on the development of the Special Economic Zone area of Mukdahan province at 0.67 percent, 0.46 percent and 0.45 percent respectively.

### Keywords

Supporting Factors; Development Administration; Special Economic Zone; Mukdahan Province

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### Introduction

As government policy is focused on the development of border areas and has determined the establishment of "Border Special Economic Zone" to increase economic opportunity and capability in border competition, creating benefits from linking with the core base manufacturing of the region, attracting local and international investment and fulfilling the main target of national development as a whole, to manage full area usage and to promote economic activity as well as to collect benefits that connect to the trade and investment with neighboring country that are located bordering the established Special Economic Zone (Noisopha, 2016). Mukdahan province has been considered to be the Special Economic Zone since it has one of the crucial trade borders of Thailand. With the advantage of the provincial location that is alongside Mekong River and with bridges crossing over it, resulting Mukdahan province to be ranked second in trade value of overall trading cities and first in the region. Based on resolution of the meeting of the National Policy Committee for Special Economic Development Zone Meeting No. 2/2557 on 17 November 2014, it was determined for the Special Economic Zone of Mukdahan province to be 11 tambols located at the border in 3 Amphurs namely Amphur Muang Mukdahan, Amphur

Wahn Yai and Amphur Don Tan, totaling 578.2 square kilometers in 361,542 rai while first stage proceedings shall commence from the Budgetary Year 2014 onwards (Yongwattananun, 2014). The rapid proliferation and economic impacts of special economic zones (SEZs) especially export processing zones—have been documented in numerous studies. By some estimates, there are approximately 3,000 zones in 135 countries today, accounting for over 68 million direct jobs and over \$500 billion of direct trade-related value added within zones.<sup>3</sup> Other studies have evaluated the economic impact of zone development, typically in terms of cost/benefit calculations of zone programs (Warr, P., 1989). Still other studies have tried to examine the relationship between free zones and economic reform and trade liberalization efforts in developing countries (Jayanthakumaran, 2002; Sinclair, 2001).

From analyzing the capability and opportunity of developing the Border Special Economic Zone finds that Mukdahan province is regarded ready to be established as the Special Economic Zone to facilitate industrialization together with warehousing businesses, distribution centers and logistic services due to its demographic advantage being the upper northeastern frontier city important to trade and investment as well as being the door to Indochina locating on the connecting

path with the East-West Economic Corridor: EWEC project that has potential to become the model special economic area. In addition, Mukdahan province has also open the Mukdahan-Savannakhet Bridge which is the 2nd bridge that crosses over Mekong River linking the 2 nations and enforcing the land transportation agreement between Thailand-Laos-Vietnam making possible the land transportation linkage within the sub-region and opening future opportunities to trade and investment (Mukdahan Provincial Office. Development Plan of Mukdahan Province (2018-2021), 2018). Apart from the systemic administration, tools are also required to be brought to support proceedings for development of the Special Economic Zone especially central and provincial offices that closely coordinate and jointly progress sustainably with all the favorable factors towards establishment of the Border Special Economic Zone of Mukdahan province, studies to help support the effect of Special Economic Zone, the management system, facilitating tools and public participation which has influence over the development of the Special Economic Zone of Mukdahan province. This is to encourage creation of knowledge and supporting data for both public and private sectors and local administrative office to be brought to further plan policies and methods to further improve the Special Economic Zone of Mukdahan province.

### Purpose of This Research

1. To study the level of influence towards the Economic Zone, the administrative system, supporting tools, public participation of the people and the development of the Border Special Economic Zone of Mukdahan province;
2. To study the facilitating factors that have effect on the Economic Zone, the administrative system, supporting tools, public participation of the people and the development of the Border Special Economic Zone of Mukdahan province.

### Literature Review

Special economic zones (SEZs) have been widely recognized as effective policy tools for nation's economic development. There are many policy rationales and successful examples behind the

usefulness of SEZs. Based on SEZ's sharing of similar concept to geographic concentration of industry development (Liptak et al., 2015) demonstrates that SEZ is a very effective policy mechanism that aims to foster a conducive institutional environment that is business friendly in the sense offering comparatively preferable and advantageous conditions for attracting foreign investments in both monetary capitals and technologies. In fact, through SEZs establishment, a country can gradually transform and polish the nation's institutional policy and general competitive environment, and thus, can competitively improve one's economic status in terms of GDP, inflation, wage, employment and expenditures in research and development (Liptak et al., 2015). Similarly, the economic competitiveness benefits of SEZs was evidenced in China since its original establishments of SEZs in Guangdong. Nevertheless, China takes a gradualist trial-and-learning approach toward a more market-oriented structural reform which, eventually, creates spillover effects across the nation Liu et al., 2007).

The SEZs is recognized to bring about many facets of benefits to China (Ge, 1999) identifies, for instance, that SEZs help China to gradually transform into competitive outward-looking economic structures, and in the process, provides an avenue for technology transfer and promoting research and development, and establishes the economic links to the domestic communities and industries. In short, there are obvious economic and social benefits, which are two fundamental domains of sustainability (Tan, 2020). In Russia, SEZs have proven to help develop and diversify exports, create jobs and strengthen the cluster-based competitiveness (Sosnovskikh, 2017) by centralizing on the concept of clusters (i.e. manifested in proximity, value creation and conducive business environment (Marshall, 2013) in the SEZs development, it creates both collaborative and competitive environment that is necessary to scale up the specialty competencies of workers, the suppliers and services, including technological and knowledge spillovers among co-located companies (Sosnovskikh, 2017) leading to the establishment of what is called regional innovation systems (Cooke, 2001).

To demonstrate the spillover effect to urban communities and even to the life of the individual citizens in the communities near the SEZs, (Teangsompong and Sirisunhirun, 2018) deduce three multi-level factors, namely, special border economic zone management, the public participation, and policy awareness, to explain the city development expectations for SEZs that is a border-type, known as special border economic zones (SBEZs). Their assumed hypotheses were basically confirmed, and most significantly at the community-level rather than at individual level.

It is not all the bright sides on SEZs, there are certainly negative impact areas which a nation needs to address. For instance, based on the concept of Environmental Kuznets Curve (EKC) that is put forward by Grossman and Krueger (1991), Liu, Heilig, Chen and Heino (2007) demonstrate and confirm the hypotheses of the EKC, which establishes a relationship between economic development and environmental quality, but they realize that it may not be subjecting to an inverted U-shaped development-environmental relationship, and instead, a new toxics' parabolic curve could be more feasible. In other words, rather than environmental quality gets improved due to stronger economic development, (Dasgupta et al., 2002) stress that new types of toxics would emerge that continue to deteriorate the environmental quality, and thus jeopardize the efforts for sustainability.

The social negative aspects of SEZs or special border economic zones (SBEZs) are also shown in Bui and Preechametta (2020) in Thailand, which relates to high congestion costs (social sustainability issue) and regional inequity across the Kingdom. Since the SEZs inceptions, Thailand has many border provinces currently implementing border SEZs, and they are being targeted with various core industries and services. (BOI, 2018). Thailand continues to believe that

SEZ is a dominant national strategy, and its recent Eastern Economic Corridor (EEC) that spans three provinces, namely Chonburi, Rayong, and Chachoengsao, is testimony to the Kingdom's success in SEZs. This research extends (Teangsompong and Sirisunhirun, 2018) structural equation modeling (SEM) on the three determinants, namely SEZ management, public participation and policy awareness, by incorporating other factors that are assumed to be significant expectation areas of the communities and stakeholders, and would form basis for sustainability, either economically, culturally, socially or environmentally. The additional factors considered are organization of SEZs, trends, control mechanisms and system, and supporting mechanism consisting of leadership, integration, knowledge management, budget, people participation, joint operations, benefit sharing, joint evaluation, stimulation, infrastructure development, and others.

### Research Methodology

The level of effect towards the Special Economic Zone, the administrative system, supporting tools, public participation of the people and the development of the Border Special Economic Zone of Mukdahan province finds that the level of effect on the Special Economic Zone is at high level at 3.72 Management system Conversion High level Mean 3.66 Effects of special economic zones Conversion High level Mean 3.82 Public participation of the people Conversion High level Mean and Development of the special economic zone of Mukdahan Province Conversion High level Mean 3.78 according to the following table: Table 1 Mean, Standard Deviation and the interpretation of the impact on special economic zones Management system, mechanisms to support public participation of the people And the development of the special economic zone on the border of Mukdahan Province (n = 400)

Variable	Mean	Standard deviation	Conversion
Effects of special economic zones	3.82	0.50	High level
Management system	3.66	0.50	High level
Public participation of the people	3.65	0.50	High level
Development of the special economic zone of Mukdahan	3.78	0.57	High level

Province			
Total average	3.72	0.51	High level

Results of analysis of model simulation on structural influence of the effect on the Economic Zone, the administrative system, supporting tools, public participation of the people that has impact on the development of the Border Special Economic Zone area of Mukdahan province which has adjusted the model is in line with the empirical data at an acceptable level which was considered from the fit index namely Chi-

square/df = 2.18, RMSEA = 0.054, RMR = 0.012, GFI = 0.92, AGFI = 0.90, CFI = 0.99, PGFI = 0.67 and CN = 235.48 and finds that the evaluation in the project sample simulation at t-value, as follows:

**Table 2:** Direct and indirect influence and the combined influence of various factors affecting the development of the border special economic zone of Mukdahan Province (n = 400)

Variable influence	Cause-effect relationship		
	Straight way	Detour	Total
Effects of special economic zones	0.04	0.46**	0.46**
Management system	0.24	0.45**	0.45**
Support mechanism	0.12	0.67**	0.67**
Public participation	0.67*	-	0.67*

Results show that public participation of the people and supporting tools have influence over the development of the development of the Border Special Economic Zone area of Mukdahan province at highest impact of 0.67 percent followed by the effect of the Special Economic Zone at 0.46 percent and the administration system at 0.45 percent, respectively. Upon considering the factors that have direct impact on the development of the Border Special Economic Zone area of Mukdahan province, it is found that public participation of the people have influence the development of the Border Special Economic Zone area of Mukdahan province at highest impact of 0.67 percent followed by supporting tools, the effect of the Special Economic Zone and the administration system at 0.67 percent, 0.46 percent and 0.45 percent, respectively.

showing the standardized regression coefficient were obtained. It was found that the indicators of entry were good with the data. Meet the criteria of the rate of admission well, which can be described as follows.

- 1) The relative chi-square value (Chi-square / df) equal to 2.18 indicates that the model is consistent with the empirical data since the relative chi-square is less than 3.00.
- 2) The square root index of the mean square error of approximation (RMSEA) is 0.054. 0.05-0.08
- 3) Index for conformity measurement in error form the index used by the researcher to determine the square root of the root mean square residual (RMR) of the standard residual (root mean square residual) is 0.012, indicating that the model is in harmony with the empirical data. A is less than 0.05
- 4) The absolute fit index is considered two indices, namely the goodness of fit index (GFI) is equal to 0.92 because the GFI is between 0 and 1 and the accepted GFI. Was greater than 0.90, and the adjusted goodness of fit index (AGFI) was 0.90, indicating that the model was consistent with the empirical data, since the AGFI was between 0 and 1. And the acceptable AGFI values are from 0.90 and above

The development of the Border Special Economic Zone area of Mukdahan province depends on public participation of the people according to analysis through project sample simulation at t-value (Fig. 1). Researcher has brought the analysis result on structured simulation to present the value of direct and indirect influence and all overall variables to indicate the various factors that affect the development of the Special Economic Zone area of Mukdahan province in the table as follows: Relationship in the model the results of the overall model improvement (Figure 1)



5) The comparative fit index (CFI) is 0.99, indicating that the model is relative harmonious because the CFI value is 0.90 or more.

6) The parsimony goodness-of-fit index (PGFI) is 0.67.

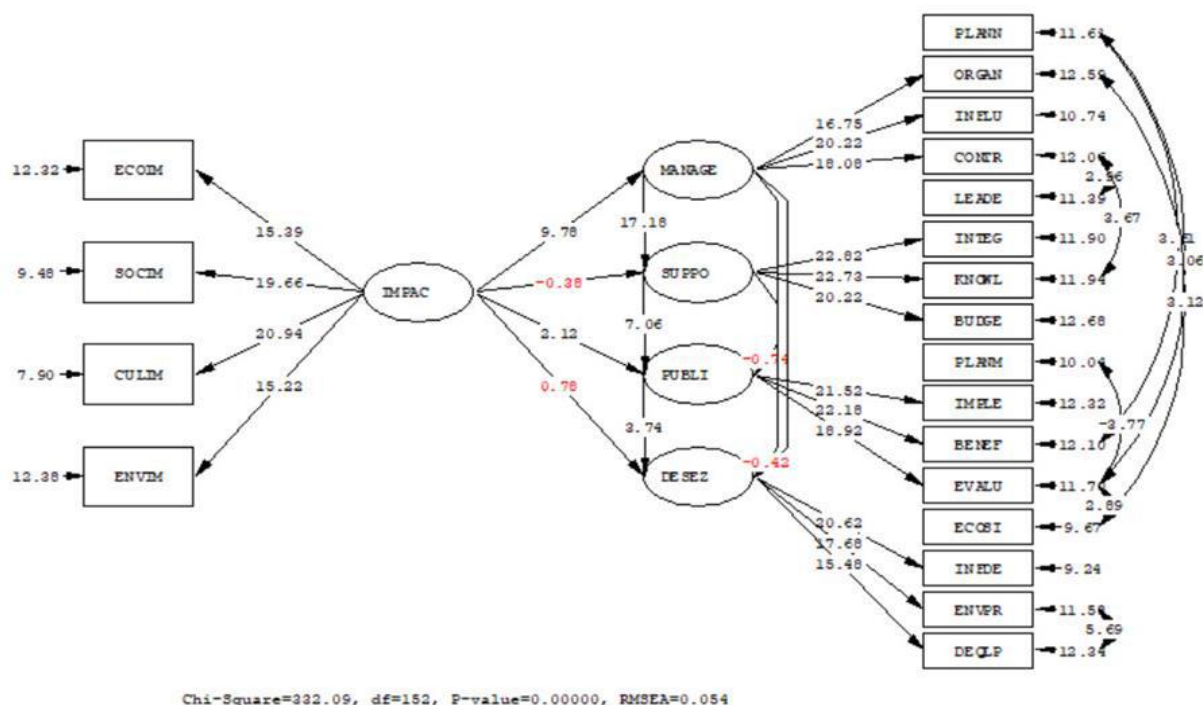


Figure 1 Model of amended structured simulation (t-value) (n=400)

Details of qualitative research from the interview of the management and personnel of the government offices, local administrative offices and the private sector relating at the level of policy and operation of the Special Economic Zone area of Mukdahan province totaling 20 persons to be used in explaining the occurrence of relationship between the in-depth variables along with to be used during discussion for the content to be detailed and in line with the survey results received, result of important interviews are as follows:

Chaliew Deewong, Deputy Mayor of Muang Mudahan (Deewong, 2019) “...without public participation of the people will not make proceedings possible. Even with the attempt of the Mayor, Governor and Head of Provincial Office coming to meet and share all possible attempts to forward the Special Economic Zone area of Mukdahan province but still is not close to being as effective as with public participation of the people. Even if the population is trying to be

involved, it is still not possible even if attempts are being seen...”

1) Public participation of the people have direct influence and the overall end-result towards the development of the Special Economic Zone area of Mukdahan province at highest level of 0.67 percent. Hence, the detail from qualitative research have given reason about the influence of public participation of the people which has effect on the development of the Special Economic Zone area of Mukdahan province that public participation of the people is crucial under the Special Economic Zone Policy which should open opportunity for the population of their representative, including from the private sector, to participate in hearing, pride opinion in various matters and take part in all processes of the project; 2) Supporting tools have given direct and indirect influence towards the development of the Special Economic Zone area of Mukdahan province at highest level of 0.67 percent alike to the information provider. The reason behind the influence of supporting tools towards the said

development area is that supporting tools in the area of leadership by the management level of the provincial offices or other agencies, management from the private investing sector, management alongside sustainability, collaboration, bring knowledge from various sources to further develop as well as budget to support management in this are all play a role to continuously progress the work of development of the Special Economic Zone and bring on actual results; 3) Result of the Special Economic Zone has given indirect influence towards the development of the Special Economic Zone area of Mukdahan province at highest level of 0.46 percent. Qualitative details from information provider towards the development of the Special Economic Zone area of Mukdahan province states that the effect towards the development of the Special Economic Zone area of Mukdahan province in areas of economic, social, cultural and environmental all have important impact on the development of the Special Economic Zone as well as effect on the economy, expansion of the economy, the increasing number of investors, local benefits due to increase of job hiring and improvement of the root of community's economy. Yet, other effects that may follow are issues on social and security that comes from labor transfer, the effects of the community's economic system and the way of local living, local culture that may also be effected due to advancement from development and the environment may also be impacted from external environment including problems of trash, water and air pollution, etc.

Somyos Chanjunthaworn, Chairman of the Industrial Council of Mukdahan province (Chuenngthaworn, 2019). "...if the province of Mukdahan successfully establishes the Special Economic Zone, it could be foreseen of better economic stimulation, environmental conservation, development of core foundation, roads and various communication systems. People will have better living and more income. All these will measure the success of the establishment and development of the Border Special Economic Zone area of Mukdahan province which measurement can focus on the betterment of quality of life of the people which will be better and the improvement of the foundation structure. Economy will stimulate the circulation of money

while factories will treat the waste waters to decrease water pollution while small particles will be controlled. All these element will be the determinant factor of measuring the development of the Special Economic Zone..."

4) Administration system has given indirect influence towards the development of the Special Economic Zone area of Mukdahan province at highest level of 0.45 percent. From details received, it has been found that the reason which the administration system has impact on the development of the Special Economic Zone is on dimensions of planning, management, influencing through leadership through good command and administrative control procedure. All these have importance role towards the development of the said area which will ensure proceeding with effectiveness and targets to be met as scheduled. This said attitude will reflect on the consistency between management systems with planning and procurement. Next will be organizational management and the effectiveness of leading employees to perform as planned upon operation.

### Summary and Discussion

This research indicates important factors that facilitate the level of influence that affect the Special Economic Zone, the administration system, public participation of the people and the development of the Special Economic Zone of Mukdahan province which is at high level. From analysis qualitative and quantitative data which reports the analysis according to the scope of thought based on the theory and related literature review, it was found that in the discussion, the researcher has summarized the linkage between the thoughts and the research work in order to approach the facts of study of the following issues:

1) Public participation of the people in the proceeding of development of the Border Special Economic Zone of Mukdahan province has influence at high level since the people is considered in the category of stakeholders in developing the local of their hometown. Therefore, by the public taking part with officials or those who are responsible to develop the local by proceeding with activities that their office

initiate is favorable since such proceedings and local development will truly respond to the demands of local residence (Yuenyong, 2018; Srising, 2015). The feelings of ownership is the point when the general public agree that will be the factor to attract the people in giving more cooperation to activities that will improve the community because of the feeling of joint-ownership. Furthermore, survey indicated that public participation by the people has direct influence and has total influence at highest level on the development of the Special Economic Zone of Mukdahan province (Funkhiaw, 2014). From the collection of data of the people from the community head, it was found that the people has knowledge, understanding and has involvement in the development of the Special Economic Zone at low level since the state and private sectors are the only ones pushing the project so participation and opinion hearing of the people is limited. This makes the people have limited information and are mainly concerned in the dimensions of making a profession, employment, infrastructure, environment, etc. Subsequently, there must be a process for public participation of the people, open floors for the numerous voices to share their opinions and be part of determining the direction and target for the development of the Border Special Economic Zone to be line with the context of social and local culture as well as studying the factors that has effect on the success of the development of Poonbumpen Community at Pasichareon District of Bangkok namely public participation of the people. This is due to the factors of participation of shared thoughts, shared planning, shared operation, shared benefits and shared monitoring and evaluation are all important components to bring about development and success to every organization. Besides, the present state sector deploys public participation of the people as an important method of community development (Markmit and Suksawat, 2017).

2) Tool supporting the drive for the development of the Special Economic Zone is at high level (Sukyapat, 2018). The important components that result on the administration and the model of administration of the development of the Special Economic Zone of Tak province consist of leadership, planning, coordination, budget management and the use of technology to

administer the development of the Special Economic Zone of Tak province. Furthermore, this research has found that tools has indirect impact and overall influence on the development of the Special Economic Zone of Mukdahan province at very high level. Factors of support from agencies of the state and private sector are factors that strongly reflect the strength of the community since Amphur Kohchan has only 2 tambols and 27 villages which opens good opportunity to the community for the state and private sector to provide thorough support since 1997 to 2016. In the past, the state sector has provided support in the areas of knowledge, planning, community development, budget allocation and has stepped down to assist problem solving in several ways to the community in the way as demanded by the local. The private sector also seen the importance of returning benefit to the local where the private sector is doing business operation, no matter in terms of providing funding for various activities in the area (Yimyam and Tavarom, 2018). Such factor of support is facilitating what the community demands for such as funding, knowledge as well as improving the quality of life and the environment which is crucial and will lead to success of the community. Moreover, the factor of serving the community by community leaders does have impact on the development. Leaders must listen to people of the community both in terms of their problems and needs. Moreover, leaders must have vision and foresee into the future, must know how to persuade, care, cure and must self-devote, which these factors will bring about cooperation and collaboration within the community which will later bring about success in the development (Markmit and Suksawat, 2018). In addition, Eaknarajindawat, (2020) identified factors affecting the development of the area. Economy under the Special Economic Zone Strategy Mukdahan Province 1) Targeted Affairs Factors, 2) Paradigm Shift Factors, 3) Benefit Factors, 4) Organizational Management Factors, 5) Driving Factors for Area Development Under the Special Economic Zones Strategy, 6) Local entrepreneurial factors, and 7) Production factors.

3) Effects of the Special Economic Zone has indirect impact and overall influence on the development of the Special Economic Zone of

Mukdahan province that consists of effects on the proceeding of the development of the Special Economic Zone of Mukdahan province which is at high level since the development of the Special Economic Zone leads to many opportunities which includes the promotion to the increase of amount and value of trade and service along the border, increase of tax amount to be collected, betterment of life quality of the people, more job employment and arising of new businesses (Harnsubsai, 2013). Effects on the establishment and development of the Border Special Economic Zone can be seen in 4 aspects namely economic effect, social effect, security and administrative effect and environmental effect.

4) The system of administration has indirect impact and overall influence on the development of the Special Economic Zone of Mukdahan province that consists of the system of administration in proceedings to the development of the Special Economic Zone of Mukdahan province which is at high level. The system of administration and the organization structure of the Special Economic Zone of Tak province is capable and has methods that are important components that reflect on administration. Analysis has been done adopting the PA-POSDCORB theory for high performance organization: HPO and considering public-private collaboration which consists of the principals of state policy on the development of the Special Economic Zone of Tak province, the authority local administration, organizational management and human resource management of the Special Economic Zone of Tak province as well as the planning for the Special Economic Zone of Tak province (Sirisoponsilp et al., 2015).

5) The development of the Special Economic Zone of Mukdahan province is at high level alike to the attitude. Management of government offices of Mukdahan province views the success of the development of the Special Economic Zone considering economic stimulation, core infrastructure development, environmental conservation and improvement of life quality of the people. With this, the Special Economic Zone will bring about development of the outer-ring roads project, expand electricity zone, provide irrigation system, create weirs as well as stimulate

the economy, conserve the environment, provide city planning, etc. This will be in consistent with the study and provide recommendation in terms of policy. The operational research project of the Special Economic Zone of Mukdahan province: the local capability and knowledge on protection of social and environmental effects of the development of the Special Economic Zone of Mukdahan province finds that area development for industrialization must consist of (1) physical dimension which considers the appropriateness of the area and the infrastructure of each system to be consistent and in accordance with the law (2) economic dimension which considers the drive both in terms of the economic drive for the industry and the economic drive for the local community for growth and justice (3) environmental dimension that focuses on environmental management and pollution control which brings about safety and good health, which leads to (4) social dimension or the quality of life of the people and (5) administration dimension which moving forward requires good administration and management integration, transparency and upgrade to better administration (Foundation of Reclaiming Rural Agriculture and Food sovereignty Action, 2016).

### Conclusion

Results of the research shows the influence of various factors that impact on the development of the Special Economic Zone of Mukdahan province, leading to the determination of proposal which the government, provincial agencies of Mukdahan province, local administration office and other various related agencies should proceed and deploy to accept the policy of Special Economic Zone of Mukdahan province for better effectiveness and efficiency in accordance to the level of influence factors namely 1) the level of effect towards the Economic Zone, the administrative system, supporting tools, public participation of the people and the development of the Border Special Economic Zone of Mukdahan province is at high level and 2) public participation of the people and supporting tools have influence on the development of Special Economic Zone of Mukdahan province at the level of very high. Consideration of only factors that have direct impact on the development of



Special Economic Zone of Mukdahan province finds that public participation of the people alone has influence towards the development of the Special Economic Zone area of Mukdahan province at the level of 0.67 percent while Supporting Tools impact the Special Economic Zone and Administration system has given indirect influence towards the development of the Special Economic Zone area of Mukdahan province at highest level of 0.67 percent, 0.46 percent and 0.45 percent respectively.

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