Direct, Indirect and Overall Effects and Related Factors Affecting Effectiveness in Driving the State-Public Policy in Buriram Province

Pattarapon Tossamas

Lecturer, Public Administration Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat Univeristy,

E-mai: Pattarapon212522@gmail.com

Sutheekit Fodsungnern

Lecturer, Public Administration Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat Univeristy,

E-mail: sutheekit.fo@bru.ac.th

Thanakorn Phetsinchorn

Lecturer, Public Administration Program, Faculty of Humanities and Social Sciences, Buriram Rajabhat Univeristy,

E-mail: theenic@windowslive.com

The research aimed to study the degree in which the factors influenced the effectiveness in driving the state-public policies in Buriram province and a scale of direct, indirect, and total effects on the development of the factors related to the effectiveness in driving the state-public policies in this province. The population in the study was 400 18-year-old residents of Buriram province derived by simple random sampling. The research instrument was a questionnaire. The research found that all three factors related to the effectiveness in driving the public policies in Buriram, the state-public policies in the provincial development, and the state-public policies in the local development influenced the effectiveness in driving the state-public policies in Buriram. These factors were directly influenced by the effectiveness in driving the public policies (PP), the state-public policies in provincial development (DBR), and the policies in the local development (DBRL). The scale of effects of the three factors was equivalent to 0.873, -0.125, and 0.201, respectively. In addition, the factors were indirectly influenced by the effectiveness in driving the state-public policies in the provincial development (DBR) and the local development (DBRL) with their effect scales 0.526 and 0.715. The predictive coefficient (R^2) was found to be equivalent to 0.912, which indicated that the variables in the model could explain the variance of the effectiveness in

driving the state-public policies in Buriram province by 91%.

Keywords

Direct Effect, Indirect Effect, Total Effect, Effectiveness, State-Public Policy

Introduction

Nowadays, society and the world have been changing fast. The ongoing changes can influence ideas, economic, social, and political states across the world. Fast-changing technology and innovation can directly affect the economic system that depends on a foreign economy as many developing countries like Thailand do. Dependence on a world economy in light of economy, society, and politics is projected to rise every year.

Boundless communication and technological competition become more and more intensive. Many countries find it essential to strengthen themselves comprehensively so that they can rely on themselves sustainably.

The national development in the past six decades starting from the first national economic and social development plan to the 12th plan has been focused on the development of the agricultural sector. As the problems related to natural disasters, and lower agricultural produce prices developed, then the development was primarily changed to the service and industrial sectors. However, the country's development could not get out of the poverty issue. This is since the income distribution in the nation was unfair and uneven. The Thai government of all ages has tried to find out effective measures to urgently assist the farming sector and tackle the issue of poverty. As a result, the national developments in other aspects were delayed or totally ignored as the government had to subsidize agricultural crops.

To undertake an action, the government needs a substantial amount of budget generated by income taxes or loans taken from overseas to achieve national development according to the state policy.

The 12th National Economic and Social Development made by the Office of the National Economic and Social Economic Development is based on the 20-year national strategy. It is the key master plan for the country's development, the Sustainable Development Goals (SDG), and national reform. In addition, the plan prioritizes the participation of all networks at vocational, regional, and national levels comprehensively and continuously to formulate the vision and direction of the national development, and to make the plan strategy aimed at 'stability, prosperity, and sustainability. The 12th national development plan is the critical changing point in connection with the 20-year national strategy in putting a long-term strategy into practice. Each strategy specified in the national plan has determined the development points as well as the major plans/projects to be implemented in the first five years in order to get ready for changes appropriately. At the same time, the concepts and mechanisms are established to drive, monitor, and evaluate to keep the development more efficient, which could lead to more sustainable development (Office of National

Economic and Social Development Commission, 2017).

The present study was conducted on the relevant theory to the development of the factors that could affect the effectiveness in driving the public policy in Buriram province. Researchers could verify or validate the causal relations based on the model by collecting empirical data and then testing a correspondence of the model. They found that no study on the model in driving the public-state policies in Buriram had been done before. The present study is expected to be useful in creating and expanding new elements of knowledge and application to make the state-public policy most effective at all levels.

Research Question

How much did the factors in the study have direct, indirect, and overall effects on driving the state-public policy in Buriram province?

Research Objective

To study the direct, indirect, and overall effects and the development of the factors on the effectiveness of the state-public policies in Buriram.

Research Hypothesis

The factors under study have direct, indirect, and overall effects on the effectiveness of the state-public policies in Buriram province.

Methodology

Scope of Research

1. Population and Samples

1.1 Population was the eligible voters aged over 18, totaling 1,224,619

(Office of Election Commission, 2021).

1.2 The samples were 400 people aged over 18 who were eligible to vote in Buriram province. They were derived by a simple random sampling according to Taro Yamane's formula at a confidence level of 95.5%, and the error variance was ± 5% (Taro Yamane; Prasit Suwanrak, 2012).

2. Variables

2.1 General information including age, sex, education, occupations, and monthly incomes.

2.2 Independent variables were goals and objectives of the policy, leadership,

resources, and power to allocate them, clear and practical policy, public relations and technology system, and public participation.

2.3 Dependent variables were the effectiveness in driving the state-public policies in the province. They included solutions to poverty, reduction of social inequality, development of life quality, equality and justice, and satisfaction with the policy.

2.4 Intervening Variables were the effectiveness in driving the state-public policies in the provincial development and the effectiveness in local and communal development.

Research Instrument

The instrument was a questionnaire consisting of six sections as the following:

Section 1: The questionnaire used a checklist on sex, age, education, occupation, and monthly incomes.

Section 2: A five-rating scale questionnaire was used to gauge the effectiveness of the policy, consisting of five variables: solution of poverty, reduction of social inequality, development of life quality, equality and justice, and satisfaction with the state-public policies.

Section 3: A five-rating scale questionnaire was used to gauge the effectiveness in deriving the policy, consisting of six variables: goals and objectives, leadership, resources, and power to allocate resources, clear and practical policies, public relations, and technology system, and public participation.

Section 4: A five-rating scale questionnaire was used to gauge the effectiveness in driving the policies, having four variables: economy, society and life quality, natural resources and environments, security, and peace.

Section 5: A five-rating scale questionnaire was used to gauge the effectiveness in driving the policies, having three variables: sustainable communal and local strength, local economic growth, and efficient access to state services.

Section 6 Recommendations were provided on the effectiveness in driving the state-public policies in the province.

Data Analysis

1. Data analysis to validate the instrument quality

A path analysis aimed to develop the model of causal relations between the variables, direct and indirect effects of the variables, and to check theoretical validity, or test the consistency of the created model and empirical data. Analysis was of two stages.

2.1 Parameter

2.1.1 Specification of the model

As the researchers were keen to study what variables could, directly and indirectly, affect the effectiveness in driving the state-public policies in Buriram, they used a model to analyze the linear relations. The variables which were analyzed were intervening ones. It was fundamentally agreed that the relations of the model were linear and additive. They were the relations between exogenous variables and endogenous variables (Wirachai, 1999).

2.1.2 Identification of the model

The researchers used the t-rule, that is, an unknown parameter must be less than or equal to the member in a matrix of the samples.

2.1.3 Parameter estimation of the model

ML (maximum likelihood) was used because it was consistent and efficient. The results showed 1) the relations between the latent variables and the manifest variables, 2) the coefficient of relations of the variables, 3) the coefficient of the relations between exogenous and endogenous variables, 4) $R2$ of a structural equation, and 5) $R2$ of empirical variables, endogenous and exogenous variables (Prasitratsin, et al., 2008).

2.2 Consistency of the model was examined in terms of relations between the model and the empirical data. Statistics used in the research were as follows:

2.2.1 chi-square statistics

If the chi-square value is very low or closer to zero and had no significance, it means that the model is consistent with empirical data (Wiratchai, 1999).

2.2.2 (x2 /df)When the samples were huge, the chi-square was likely to be high; thus, x2 /df should not be higher than 2.00 (Anguchote, et al., 2011).

2.2.3 If the value of goodness-of-fit index: GFI exceeded 0.9.-1.00, it means that the model was consistent with the empirical data.

2.2.4 If the value of the adjusted goodness–of–fit index ranged from 0.90-1.00, it means that the model was consistent with the empirical data.

2.2.5 CFI (comparative fit index) was used to compare a research hypothesis if the consistency was higher than the empirical data. The value ranging from 0.90 to 1.00 indicated that the model conformed with empirical data.

2.2.6 Standardized RMR was indicative of the model's error. If it was less than 0.05, the model was in accord with empirical data.

2.2.7 RMSEA (root mean square error of approximation) was indicative of the inconsistency of the model. If it was lower than 0.05, the model was in accordance with empirical data.

2.2.8 Critical N or CN was an index of the samples. CN should be more than 200 of the samples (Diamantopoulos & Siguaw, 2000, cited in Angsuchote, et al., 2011).

2.2.9 Fitting residual matrix was the matrix having different outcomes consisting of errors in terms of raw scores and standard scores.

2.2.10 The model modification was based on a theory and research works. The modification was done considering the parameter, squared multiple correlations, and overall fit.

Research Results

The results were presented in the table below.

Table 1 The scale of direct, indirect, and total effects on the effectiveness of the state-public policies in Buriram province

Variables	DE (direct effects)	IE (indirect effects)	TE (total effects)
Effectiveness in driving state-public policies in the development of Buriram	-0.125**	0.526**	0.401**
Effectiveness in driving state-public policies in local development	0.201**	0.715**	0.917**
Effectiveness in driving public policies in Buriram	0.873**	-	0.873**
$(\chi^2) = 227.158$, df = 117, p = 1.941, CFI = 0.986, TLI = 0.981, RMSEA = 0.055, SRMR = 0.014			
R^2 equation of effectiveness in driving state-public policies in Buriram = 0.912			

Notice ** $p < 0.01$

Table 1 shows that a direct, indirect, and total effect on the effectiveness in driving the state-public policies in the province of Buriram (Y) was found to be directly influenced by the effectiveness of the public policies in Buriram (PP), the state-public policies in the provincial development (DBR), and the state-public policies in local development (DBRL). The scale of effects was equivalent to 0.873, -0.125, and 0.201 respectively, which was the effect with a statistical significance of 0.01. In addition, there were indirect effects from the effectiveness in driving the state-public policies in the provincial development, and local development. The scale of effects was equivalent to 0.526 and 0.715, with a statistical significance level of 0.01.

The predictive coefficient (R2) of the effectiveness in driving the state-public policies in Buriram was found to be equivalent to 0.912, which indicated that the model's variables could explain the variance of the effectiveness of the state-public policies in Buriram by 91 %. The weight of the model's variables is presented in Table 2.
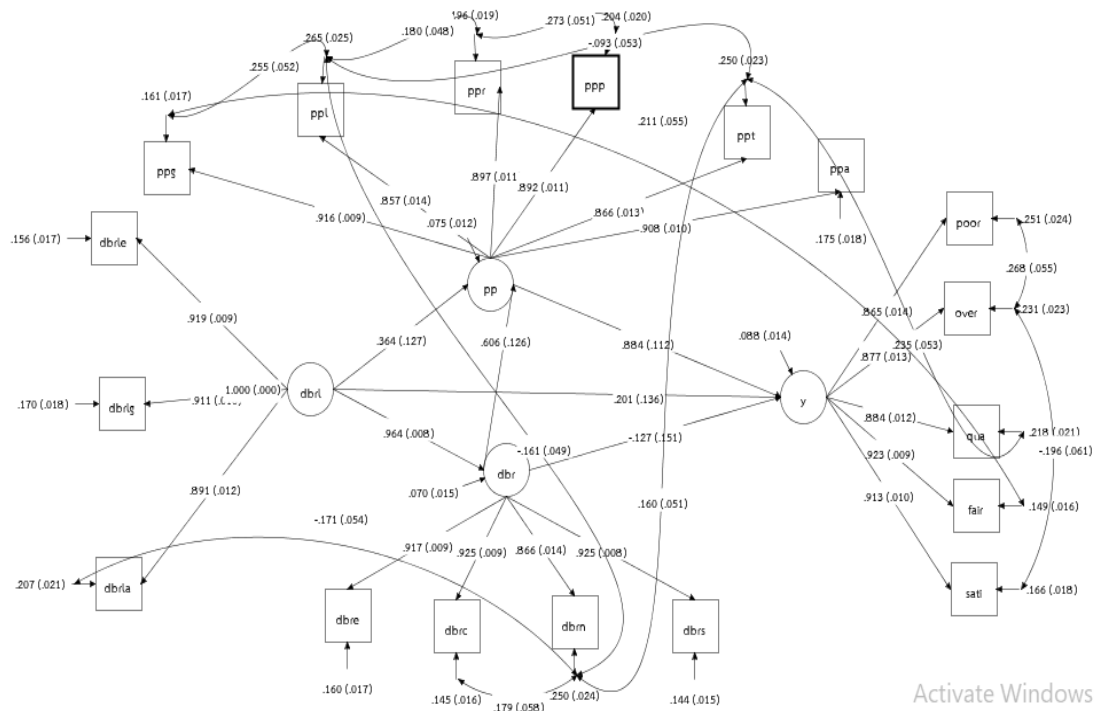
Table 2 Weight of the variables of the effectiveness

Observable Variables	Weight of components(λ)	SE	T	R²
Solving poverty issue (Poor)	0.865	0.014	62.691	0.749
Reducing social inequality (Over)	0.877	0.013	66.041	0.769
Developing life quality (Qua)	0.884	0.012	73.602	0.782
Equality and justice (Fair)	0.923	0.009	106.012	0.851
Satisfaction with state-public policies (Sati)	0.913	0.010	94.148	0.834
Goals /objectives of policies (PPG)	0.916	0.009	100.473	0.839
Leadership (PPL)	0.857	0.014	59.292	0.735
Resources &power to allocate them (PPR)	0.897	0.011	84.116	0.804
Clear, consistent &practical policies (PPP)	0.892	0.011	79.527	0.796
Public relations &technology system (PPT)	0.866	0.013	65.072	0.750
Public participation (PPA)	0.908	0.010	93.916	0.825
Economy (DBRE)	0.917	0.009	100.885	0.840
Social issue &life quality (DBRC)	0.925	0.009	108.131	0.855
Resources and environments (DBRN)	0.866	0.014	63.016	0.750
Security & peace (DBRS)	0.925	0.008	111.217	0.856
Sustainable local strength (DBRLE)	0.919	0.009	98.299	0.844
Local economic growth (DBRLG)	0.911	0.010	92.163	0.830
Efficient access to state services (DBRLA)	0.891	0.012	79.764	0.793

In Table 2, it was found that the observable variables with a maximum weight were social issues and life quality (DBRC), and security and peace (DBRS) both having a component weight equivalent to 0.925, while the variable having a minimum weight was the administrators' leadership, its weight being equivalent to 0.857.

As regards the predictive coefficient of the observable variables, it was found that the observable variables had a predictive coefficient at $0.735 - 0.856$. The variable having a maximum predictive coefficient was security and peace (DBRS), being equivalent to 0.856, while the variable having a minimum predictive coefficient was the administrators' leadership (PPL), being equivalent to 0.735.

It can be concluded that the results of the study of a direct, indirect, and total effect and the factors influencing the effectiveness of the state-public policies in Buriram were consistent with the set hypothesis as shown in figure 1.

Chi − square = 227.158, df = 117, p = 1.941, CFI = 0.986, TLI = 0.981, SRMR = 0.014,

RMSEA = 0.055

Figure 1 Diagram of direct, indirect and total effects and factors influencing the effectiveness of the state-public policies in Buriram

The study of direct, indirect, and total effects and the factors on the effectiveness in driving the state-public policies in Buriram showed that three factors related to the public policies in Buriram, the state-public policies in the provincial development, and the state-public policies in local development all had an influence on the effectiveness of the state-public polices in Buriram. The factor with a decisive role in driving the public policy in the province of Buriram was most influential, followed by the factor related to the state-public policies in local development, and the factor concerning the state-public policies in the provincial development with a statistical significance of 0.01.

It was also found that the effectiveness in driving the state-public policies in provincial development was positively related to the effectiveness of the state-public policies in local development with a statistical significance level of 0.01. The factors in the study can be discussed in the following sections:

1. The factor influencing the effectiveness of the state-public policies in Buriram province

1.1 The factors of the effectiveness of the public policies in Buriram consisted of six components: goals and objectives, administrator's leadership, resources, and power to allocate them, clear and practical policies, public relations and technological use, and public participation. These components had a positive, direct effect and total effect on the effectiveness of the state-public policies in Buriram. The total weight was equivalent to 0.873 with a statistical significance of 0.01.

The findings showed that the effectiveness of the public policies in Buriram was a significant factor because it was mainly the effectiveness was the main contributing principle to the success of the state-public policies in the province. The finding was consistent with the results found by Pratyapruek (2008) who defined the term, 'effectiveness' as the level in which individuals could perform the tasks to achieve the set goals. According to Yawaprapat (2007), 'effectiveness' was an ability to achieve the objectives or goals of the policy. In Ketsuwan's view (2007), public policy was the utilization of knowledge, rational ideas, and will solve problems; it was the guidelines for the future aimed to achieve public benefits.

The results were also in accordance with the research conducted by Phramaha Sumek Samahito (2018) who examined the causal relations between Buddhism-based integrated effectiveness and the local administration in the province of Pichit. The study in question found that the factors that affected the effectiveness of integrated effects of the local administration in the province of Pichit consisted of 1) good capital, 1.2 good processes, and 1.3 good support.

1.2 The factors of the effectiveness of the state-public policies in local development consisted of three components: sustainable community strength, communal economic growth, and efficient access to state services. These had a direct and positive effect on the effectiveness of the policies in the province of Buriram.

The effectiveness of the state-public policies in community development was indirectly connected to the policies in the provincial development with a statistical significance level of 0.01.

It was apparent that the effectiveness of the state-public policies in the local development proved crucial to the policies in Buriram. The reason was that for the state-public policies to materialize, it was essential to strengthen communities first. The strengthening process may be carried out through employment, occupations, the elevation of the communal economy, and standardized services provided by the states. What was more, it was important that people could gain equal access to standard services and that the communities could share common benefits. The findings described were in accord with the study by Panya (2017) who studied the use of state policies and found that there were several factors conducive to economic growth and community strength. The factors included the participation of the local residents, support for policies, clarity of policies, and allocation of resources. Wuttkorn (2018) studied the factors that affected the effectiveness of converting the national land into agricultural areas in Tambon Bum and Tambon Lansuk of Lansuk district, Uthaithani province, and found that the objectives of the policy and control were positively related with no statistical significance. The factors of cooperation and targets had a positive effect on using the national land with a statistical significance of .01. In the study, it was recommended that the state should allocate the land to people in need. A similar study was made by Permpoon (2018) who studied the policy of administration and development of the southern provinces of Thailand. He found that there were sufficient resources; however, there

was no balance between security and development; the policies were suitable; the processes and mechanisms were consistent, but not well integrated. There was satisfactory cooperation from the public and other sectors. There were recommendations that there should be a balance between security and development and driving mechanisms should be made more efficient.

1.3 The factors of effectiveness of the state-public policies in the development of the province consisted of three components: economy, society, and life quality; natural resources and environments; security and peace. They had a direct effect and total effect on driving the state-public policies in Buriram. The weight of a total effect was equivalent to 0.401 with a statistical significance level of 0.01. Furthermore, the factor of effectiveness is also indirectly influenced through the state-public policies in the local development at a statistical significance level of 0.01. From the finding, it was apparent that the effectiveness of the state-public policies in the provincial development was a significant factor in driving the state-public policies in the province of Buriram. The issue could be explained that the policies had fostered economic performance at all levels. The state-public policies promoted a vocational group, production, and economic strength or power, developed the life quality and well-being of people and promoted harmony. The idea was in accord with the study by Pornpromwinit (2015) who found that the factors that affected the effectiveness of implementing the community development policy in the eastern region comprised eight variables. 1) The factors in implementing the policy consisted of objectives that could be measured and evaluated and political support. 2) The factor of sufficiency economy consisted of 3 variables: environments, support, and natural resources. 3) The factor of communal development was composed of 2 variables: communal conditions and public participation.

The recommendations for improvement of the effectiveness of the communal development provided in the above study were four-fold: 1) development should be focused on the village zones, and the differences and actual needs of communities were to be considered. 2) The policy should promote vocational training, job creation, and employment in communities as well as development on the part of teachers and educational personnel. 3) Environments and natural resources should be improved such as conservation and treatment of toxic wastes and 4) as regards the development, the local communities should play a part in the development projects.

Inchat (2017) found that the factors related to local administration and local environments had an influence on the participatory public policy at the local level, particularly the factors concerning strategic management, administrative processes, and participation. All these factors positively influenced the administration of public policy at the local level. The finding was also consistent with the research by Nakrod (2019) who found that the variables of the state-public policies influenced the local development in the province of Choompon.

The study found six variables: the potential of the organization, social power, local participation in the development, assurance of rights and liberty, the balance of

the participation in development, management, and solution of the conflicts by a peaceful means.

Conclusion

The public policy in Buriram had a direct effect on the effectiveness in other aspects. An indirect effect could be of two paths: in the first path, an indirect effect could be perceived through the state-public policies in the development of Buriram. In the second path, an indirect influence could be exerted through the state-public policies in the development of the local communities. Driving the state-public policies in the provincial development had a direct effect or influence on the effectiveness of the state-public policies and had an indirect effect on the policies in the communal development. For the policies to be efficient, it was necessary to rely on public relations and modern technology. Whether the policies were achievable or not could be measured by life quality, equality in getting access to the policies, and justice in the distribution of resources.

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