Strategy for Developing Institutional Service Models for Regional Innovation in Indonesia

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ABSTRACT

One of the efforts to accelerate regional development can be done through regional innovation. These efforts in Indonesia have been implemented in recent years, but in the Province of Papua, there is still no real form of regional innovation that can be utilized. Therefore, the effort it takes is outlined in the monitoring and evaluation model of regional innovation in the Province of Papua. The purpose of this study is to determine the readiness of the service agencies in the implementation of regional innovation and to analyze the model service agency through the monitoring and evaluation of regional innovation in the Province of Papua. The parameters of the monitoring and evaluation consist of the annual work plan; monitoring and supervision framework; monitoring and surveillance tool as well as the system of collection of data; analysis, dissemination, and Use of Monitoring and data; and contributing to learning. Exploration methods were used in the research to discover the problem of the readiness of the service institutional innovation regional and reinforce the concept of regional innovation in the scope of the monitoring and evaluation model qualitatively. The study locations are in the Province of Papua, with a study period of February until August 2021. Secondary Data derived from the regional location of the study in the form of a Data Work Plan of the apparatus of the regional innovation proposals regional, and regional readiness in the regional innovation. Institutional value is very high and evaluating internal and external. This evaluation is carried out by way of participating with the involvement of the recipient. The findings of the evaluation are discussed internally and are divided in proper format with the testator, and other stakeholders. Decisions and adjustments always follow from the evaluation. The institution has been able to draw lessons from the evaluation. The monitoring and evaluation model in this study can be an alternative reference for the implementation of the regional innovation with the limitation on the annual work plan supported by the supervision of regular and supervision of the use of surveillance and the tools and data collection systems are analyzed that can be used for learning the constitution.

Keywords: Institutional; Regional Innovation; Monitoring; Evaluation Model

1. INTRODUCTION

One of the efforts to accelerate regional development can be done through regional innovation. Some scholarly attention present, such as in the context of the network discussed the organization of collaboration for innovation in the framework of the Triple Helix Model by [1] in line with the Triple helix twins: a framework to achieve innovation and development goals that are not sustainable [2] the Effect of supporting the innovation of the government as discussed by [3], the Innovation of Local government in the field of agriculture in the study [4], the government's policy in the Policy of Regional innovation [5], innovation entered in the context of local economic development and planning in the study [6], [7] even review the Ideologies involved in innovation in government, innovation in the public sector and political [8] then in innovative Organizations in the Local government discussed [9].

These efforts in Indonesia have been implemented in recent years, but in the Province of Papua, there is still no real form of regional innovation that can be utilized. This happens because of the lack of understanding in the construction technical about how to encourage innovation in the public sector. Therefore, it takes outlined in the monitoring and evaluation model of regional innovation in the Province of Papua as an

evolutionary process innovation refers to the evolution of the behaviour of the innovation of a new generation [10].

In the year 2021, the Province of Papua has been noted that there are as many as 518 innovations scattered areas in the Province of Papua, Merauke, Pegunungan Bintang, Biak Numfor Supiori, Mimika, the City of Jayapura, Jayawijaya, Nabire, Keerom, and Jayapura. But in the process of identification of regional innovation not optimally implemented, there are findings of the low availability of the documents, annual work plan, data collection, and replication of the innovation areas that support the work to be used as a regional innovation. Whereas, the regional innovation identified shows its contribution to the development in the Province of Papua.

Therefore, it needs monitoring and evaluation as a limitation in this study and can be used as an alternative tool used to determine and analyse the level of readiness of regional innovation. The purpose of this study is to determine the readiness of the service agencies in the implementation of regional innovation and to analyse the model service agency through the monitoring and evaluation of regional innovation in the Province of Papua. The parameters of the monitoring and evaluation consist of the annual work plan; monitoring and supervision framework; monitoring and surveillance tool as well as the system of collection of data; analysis, dissemination, and Use of Monitoring and data; and contributes to learning.

2. METHOD

Exploration methods were used in the research to discover the problem of the readiness of the service institutional innovation regional and reinforce the

concept of regional innovation in the scope of the monitoring and evaluation model qualitatively. The study locations are in the Province of Papua, with a study period of February until August 2021. Secondary Data derived from the results of the identification data innovation Papua 2021. Instruments in the study using the Data Plan of Work of the apparatus of the regional, the proposal of regional innovation, and regional readiness in the regional innovation. Analysis using the tools in the form of a table with the parameters of the institutions that can show the results of the achievements that have been implemented, and are distinguished within the limits of beginners, grow, growing, forward, forward sustainable.

3. RESULT AND DISCUSSION

The identification results are presented based on secondary data with the type restrictions, the shape, the initiator, and the affairs of the regional innovation derived from the Papua Province and District/City that has had a regional innovation. Then the proposed construction as an alternative tool to determine the readiness of the regional innovation with the limitation of the scale of the budding, beginners, grow, growing, forward, forward sustainable.

In the introduction it has been described that in the year 2021, the Province of Papua has identified as many as 518 regional innovations derived from eleven districts/cities, the findings that can be shown are as many as eight districts have not been able to show the innovation of the region. The results of the Identification of the Type of regional innovation in the Province of Papua in 2021 can be seen in Table 1, as follows.

Table 1 The results of the Identification of the Type of Regional Innovation in the Province of Papua in 2021

No	Region	Digital	Non-digital	Grand Total
1	Regency Merauke	1	1	2
2	Regency Pegunungan Bintang	1	1	2
3	Regency Tolikara	1	1	2
4	Regency Biak Numfor	3		3
5	Regency Supiori	1	2	3
6	Regency Mimika	3	4	7
7	The Province of Papua	11	3	14
8	The City of Jayapura	13	13	26
9	Regency Jayawijaya	12	18	30
10	Regency Nabire	20	70	90
11	Regency Keerom	43	65	108
12	Regency Jayapura	89	142	231
	Grand Total	198	320	518

Source: Regional Innovation Papua Province, 2021

Types of innovation non-digital by 62% have a predominance compared to digital by 38%, this happens because of the resistance of the structure and character of the region for the Intervention facilities and infrastructure digital. To the penetration of digital in the Province of

Papua, through the efforts of the improvement and strengthening of the infrastructure of the digital in a few years, this had been done in a synergy of stakeholders in national and regional, although not evenly distributed in all districts/cities. The penetration of digital contributes

to the acceleration of innovation, as mentioned in the approach technically have discussed the Concept of Government Digital innovation and digital measurement [11], Measuring the Impact of innovation Activity In the government [12], though there are still weaknesses shown in the argument condition of the organization that excessive where exploration and organizations interact to create the work cycle low [13].

In addition to the type of regional innovation, it can be shown the results of the identification of the form of regional innovation that distinguished three forms of innovation in other areas of public service innovation and innovation in local governance. About the literacy scientific, forms of innovation have been presented in some perspective, for example, the efficiency of the creep and shadow innovation: influence the ambidextrous it governance in the public sector are analysed [14], [15] government Intervention, financial support, and the efficiency of independent innovation enterprise, [16] the Merger of the degree of government support, financial support and innovation and its Impact In Economic Development. The public sector in the perspective of the bidding chain from the risk of transmission of innovation [17], and Stages and determinants of the development of e-government [18]. The results of the Identification Form innovation Area in the Province of Papua in 2021 can be seen in Table 2 below.

Table 2 The results of the Identification Form Innovation Area in the Province of Papua in 2021

No	Region	Public service innovation	Innovation and local governance	Innovation in other areas	Grand Total
1	Regency Merauke	1		1	2
2	Regency Pegunungan Bintang	2			2
3	Regency Tolikara	2			2
4	Regency Biak Numfor	3			3
5	Regency Supiori	2	1		3
6	Regency Mimika	7			7
7	The Province of Papua	4	10		14
8	The City of Jayapura	18	7	1	26
9	Regency Jayawijaya	30			30
10	Regency Nabire	71	2	17	90
11	Regency Keerom	99	8	1	108
12	Regency Jayapura	212	19		231
	Grand Total	451	47	20	518

Source: Regional Innovation Papua Province, 2021

The composition of the form of regional innovation in the form of public services provide a portion of the most massive, with the achievement of as much as 84% of a total of 518 innovation areas, compared two forms of innovation in other areas, namely innovation governance by 9% and the other by 4%. Furthermore, the initiator of the innovation area, based on the results of the Identification of the Initiator of the Innovation Area in the Province of Papua in 2021 distinguished into four initiators, State Civil Officers, the Head of Regional, Community and regional Organization. The initiator in the literature science appears as the main actor in the innovation process, for example, then the relationship between government funding, R&D model and innovation performance [19] and the performance of the funding R&D government [20] in the Ethics of public administration in the Era of technology disruption and innovation the government [21] open government Data as a process of innovation [22] and [23] the Effect of the synergy of science and technology policy on innovation [24] and the application of leadership styles in enhancing innovation local government [25] and [26] The results of the Identification of the Initiator of the Innovation Area in the Province of Papua in 2021 can be seen in table 3 below.

Table 3 The results of the Identification of the Initiator of the Innovation Area in the Province of Papua in 2021

No	Region	State Civil Officers	Regional Head	Community	Regional Organization	Grand Total
1	Regency Merauke	1			1	2
2	Regency Pegunungan Bintang	1	1			2
3	Regency Tolikara		2			2
4	Regency Biak Numfor			1	2	3
5	Regency Supiori				3	3
6	Regency Mimika			3	4	7

No	Region	State Civil Officers	Regional Head	Community	Regional Organization	Grand Total
7	The Province of Papua		3		11	14
8	The City of Jayapura	2	7		17	26
9	Regency Jayawijaya		1		29	30
10	Regency Nabire		11	4	75	90
11	Regency Keerom		1	1	106	108
12	Regency Jayapura		3		228	231
	Grand Total	4	29	9	476	518

Source: Regional Innovation Papua Province, 2021

The ability and capacity of the Organization of the Region showing the initiator of the highest achieved by 92%, then the head of the area as much as 6%, the community as much as 2%, and the remaining 1% comes from the initiator of the state civil apparatus. Presentation of data the last is the identification of the affairs of regional innovation refers to Law number 23 the year 2014 on regional government and Law No. 21 of 2001 on Special Autonomy for Papua Province. Although many references scientific categorize the affairs of innovation but the leads on the functioning of the economic, social, territorial, for example, what kind of support the government in SME food that improve the performance of innovation? [27] the relationship between entrepreneurship innovation, government regulation, and performance [28] Economic Development innovation [29] the innovation of government bonds in the growth of the capital market that appears [30] government subsidies on enterprise innovation: based on the perspective of the three-dimensional [31], Analysis Of the Role of the government In the Construction of the innovation System of the Region [32] How local government in social innovation to facilitate the community to thrive?[33] Then in the technical limitations for example the efficiency, performance, dimensions, context, characters, motivation as mentioned Whether the efficiency of government higher brings about innovation in higher?[34] government Management innovation-oriented: the context and character of the model [35] innovation Capability and performance [36] the Motivation for the adoption of Management innovation by Local government and the effects of performance [37] and responsible innovation urban with the local government of artificial intelligence (AI) [38] However, refers to Law number 23 the year 2014 the Affairs of the regional innovation can be seen from the results of identification as follows.

Table 4 The results of the Identification of the Affairs of the Regional Innovation in the Province of Papua in 2021

No	Affairs	Grand Total
1	not mentioned	1
2	population administration and civil registration, filing, Function Supporting the other by the provisions of laws and regulations	1
3	population administration and civil registration, communication and information technology, the Function of Supporting the other by the provisions of laws and regulations	1
4	population administration and civil registration, community empowerment, and Village	1
5	population administration and civil registration, community empowerment and Village, communication, and information	1
6	archives	1
7	youth and sports, Education, and Training	1
8	health, Planning, Finance	1
9	health, social	1
10	communication and information technology, the Function of Supporting the other by the provisions of laws and regulations	1
11	communication and information technology, filing, Staffing	1
12	communication and information technology, statistics, Planning	1
13	cooperatives, small, and medium enterprises, trade, industry	1
14	community empowerment and Village, cooperatives, small, and medium enterprises, trade	1
15	capital investment, Research, and Development	1
16	investment, trade	1
17	education, health, women empowerment, and child protection, population administration, and civil registration	1
18	education, women's empowerment, and child protection	1
19	Planning, Staffing	1

No	Affairs	Grand Total
20	library	1
21	labour, Financial, Personnel, Functions Supporting the other by the provisions of laws and regulations	1
22	labour, capital investment	1
23	Personnel	2
24	Planning, Finance	2
25	land	2
26	housing and settlement area	2
27	labour	3
28	trade	5
29	agriculture	5
30	social	5
31	The function of Supporting the other by the provisions of laws and regulations	8
32	public works and spatial planning	8
33	cooperatives, small, and medium	9
34	transportation	9
35	tourism	13
36	marine and fisheries	15
37	communication and information technology, statistics	17
38	Financial	18
39	food	19
40	health	20
41	capital investment	20
42	women's empowerment and child protection	23
43	peace, public order, and protection of the community	24
44	education	26
45	Planning	31
46	community empowerment and Village	33
47	population administration and civil registration	37
48	environment	40
49	communication and informatics	49
50	population control and family planning	51
	Grand Total	518

Source: Regional Innovation Papua Province, 2021

Affairs communications and information technology and affairs of population control and family planning have the largest portion with the achievements of around 9% of the total regional innovation. Furthermore, the administration of population and civil registration and environmental affairs with the achievements of around 7%, the rest is a matter which is the quantity of achievement in under 7%.

The results of the discussion showed the presence of a gap document that is marked with the variations in the achievement of regional innovation better than the type, the shape, the initiator, and the affairs of regional innovation. In this discussion-built construction monitoring and evaluation to determine the level of readiness of the type, the shape, the initiator, and the affairs of regional innovation. To determine the readiness of the analyzed aspects, a description of the indicators of monitoring and evaluation of regional innovation, which refers to [39] with the adjustment of the character of regional innovation, which can be seen in table 5 below.

Table 5 Aspects, a description of the indicators of monitoring and evaluation of regional innovation

Aspect		Annual work plan	Document plans and framework.	Document tools and data collection system.	Document data analysis, dissemination, and use.	Evaluation contributes to organizational learning.
Descriptions of scale scores	condition 1	There is no annual work plan. The organization works on whatever activities present themselves.	There are no Document plans for the various programs and no Document framework for the organization.	No Document tools exist and no Document data is collected.	No Document data is analysed.	No programs have been evaluated.

Aspect	Annual work plan	Document plans and framework.	Document tools and data collection system.	Document data analysis, dissemination, and use.	Evaluation contributes to organizational learning.
condition 2	There is an informal idea of an annual work plan, but nothing formally agreed upon. Priority activities are based on immediate needs OR donor requests.	There are piecemeal Document plans for some programs which were developed long ago because of donor insistence and have not been followed. The Document plans are not clear nor logical. Few staff members are aware of the Document plans.	The organization has a few basic Document tools and collects Document data if the donor requires it. Data is collected by untrained individuals. Data is not collected regularly and is not stored.	Some basic analysis of Document data is conducted for donors, but it is not transformed into knowledge for internal dissemination and decision-making. The staff does not have the requisite skills to conduct data analysis.	Programs are only evaluated if there is a donor requirement. Evaluation findings are only shared with the donor. The organization does not understand the importance of evaluation.
condition 3	There is a written annual work plan for the organization and/or individual programs. But it is vague and does not have measurable results or indicators. The annual work plan was not developed in a participatory manner NOR is widely known by staff.	There are Document plans for some programs. The Document plans contain some of the following components ("theory of change"/results framework, objectives, indicators, and targets) and are reasonably clear and logical. Attempts were made to involve staff in developing the Document plans. The Document plans may not have been utilized.	The organization has some standard Document tools which are used to collect data to meet donor requirements and for internal use. Data is collected by individuals with some basic training but there are no quality control mechanisms in place. Document data is collected in line with Document plans but is not always collected on time. Data is stored securely, the system is paper-based.	The organization has a basic system to analyse Document data and produce reports. Because of limited data analysis skills, Document reports are not produced regularly and often contain inaccuracies. Document reports may not meet donor requirements. Document reports are discussed internally and sometimes used to inform decision-making.	Programs are evaluated at the request of donors. Evaluation findings are discussed internally in a limited manner by some staff and decisions are rarely taken as a result.
condition 4	There is an annual work plan for the organization and individual programs which is linked to the strategy and budget. It has activities, timeframes, and measurable results but some aspects	There are sound Document plans for the various programs and an overall Document framework for the organization. The Document plans contain all of the following components	The organization has good Document tools which are aligned to the Document plans. Data is collected by trained individuals.	The organization understands the importance of analysing Document data and has a good system to do so. The organization has staff who are competent in data analysis and produce reports	Organization values evaluation and programs are often evaluated. Evaluations are conducted in a participatory manner involving staff. The evaluation findings are discussed

Aspect	Annual work plan	Document plans and framework.	Document tools and data collection system.	Document data analysis, dissemination, and use.	Evaluation contributes to organizational learning.
	of the work plan are unclear. The work plan was developed in a participatory manner with staff. Implementation of the work plan is monitored and sometimes used to inform decision-making.	("theory of change"/results framework, objectives, indicators, and targets) and are clear and logical. The Document plans were developed in a participatory manner involving staff and attempts were made to involve beneficiaries. The Document plans are current but they are not consistently utilized.	Data quality checks are sometimes done through spot checks. Document data is collected regularly in line with Document plans. Data is stored securely in an electronic system.	which are timely and accurate. Document reports are shared with donors and staff and some efforts are made to share Document information with beneficiaries. Document information is regularly used to inform decision-making.	internally and shared with donors and beneficiaries. Decisions are sometimes taken as a result of evaluation findings and evaluation contributes to organizational learning.
condition 5	There is an annual work plan for the organization and individual programs which is aligned to the strategy and budget. It has measurable results, activities, and indicators, due dates, and responsible people are clearly stated. The work plan was developed in a participatory manner involving staff and beneficiaries. Implementation of the work plan is monitored on an ongoing basis and consistently informs decision-making. Program activities are synchronized to support and enhance one another.	There are sound Document plans for all programs and an overall Document framework for the organization. The Document plans contain all of the following components ("theory of change"/results from framework, objectives, indicators, and targets). The Document plans were developed in a participatory manner, involving staff and beneficiaries. The Document plans are current, staff members are familiar with them and they are consistently utilized.	The organization has good Document tools which are aligned to the Document plans. Data is collected by trained individuals. Data quality checks are regularly conducted and mechanisms are in place to address data quality issues. Data is collected regularly and meets all the requirements of the Document plans. Data is stored securely in an electronic system.	The organization understands the importance of analysing Document data and has a good system to do so. The organization has staff who are skilled in data analysis and produce reports which are timely and accurate. Document reports are packaged in appropriate formats to share with donors, staff, beneficiaries, and other stakeholders. Document information is used to inform program design, implementation, management, and strategic decision-making.	The organization values evaluation highly and regularly conducts internal and external evaluations. Evaluations are conducted in a participatory manner involving staff and beneficiaries. Evaluation findings are discussed internally and shared inappropriate formats with donors, beneficiaries, and other stakeholders. Decisions and adjustments always follow from an evaluation. The organization has been able to draw lessons learned from evaluation.

Description of the aspects can be described as follows:

1. Annual work plan: Organization has an annual work plan linked to the strategy and budget, with measurable results, activities, timelines, responsibilities, and indicators. The work plan was developed collaboratively, is monitored, and informed decision-making.

2. Document plans and framework: Sound document plans are used to monitor and evaluate progress toward desired results. The document plans include a

"theory of change"/results framework, objectives, indicators, and targets.

3. Document tools and data collection system: document tools are used to collect data in line with document plans. Data is collected regularly and there is a robust system for storing and managing it.
4. Document data analysis, dissemination, and use: document data is analysed and reported to internal and external stakeholders and used to inform decision-making.
5. Evaluation contributes to organizational learning: Programs are evaluated and evaluation findings are discussed, disseminated, and inform organizational learning.

4. CONCLUSION

The findings of this study provide parameters by applying the strategy to develop a service model institution for regional innovation in the Province of Papua through the evaluation discussed internally and are divided in proper format with the successor to the/users, and other stakeholders. Decisions and adjustments always follow from the evaluation. The institution has been able to draw lessons from the evaluation. The monitoring and evaluation model in this study can be an alternative reference for the implementation of the regional innovation with the limitation on the annual work plan supported by the supervision of regular and supervision of the use of surveillance and the tools and data collection systems are analysed that can be used for learning the constitution.

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