

Management of fisheries public services in the coastal regions and islands of Vietnam

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Abstract

Purpose – This study aims to analyze the evaluation criteria of fisheries public services management in the coastal regions and islands of Vietnam.

Design/methodology/approach – The Cronbach's Alpha test, exploratory factor analysis, paired samples *t*-Test and importance performance analysis (IPA) model are employed to analyze the data collected from a survey of 319 cadres and civil servants.

Findings – The research results show that the indicators of the evaluation criteria are scattered in four quadrants of the IPA model. The results show a significant gap between policy formulation and its implementation regarding public service management for fisheries in Vietnam's coastal and island areas. More importantly, the effectiveness and efficiency are considered to be low.

Originality/value – The highlight of this study was to shift the approach by using the IPA model to clearly identify the gap between the importance that respondents expected and the level of implementation by state regulators. The results provided practical insights for managers of state management agencies to understand the current state of fisheries public services management in recent years. Additionally, the matrix IPA results provided a foundation for future managerial actions to enhance fisheries public services management.

Keywords Fishery public services, IPA model, State management, Evaluation criteria, Coastal and islands

Paper type Research article

1. Introduction

In the past five decades, the management of public services has undergone considerable change, not only in Vietnam but also around the world. The emergence of modern public administration and managerialism has signaled the beginning of a new public management model (Benson *et al.*, 2021). According to the National Assembly of Vietnam (2015), the management of public services is one of the most crucial functions of the state apparatus to serve the essential needs of citizens.

Vietnam has many potentials and advantages to develop the fishery sector in the coastal regions and islands. The state and fishery public service management bodies have changed measures and ways of organizing the supply to improve the quality and develop different types of public services for economic actors to keep up with the new public management trend. These changes have brought positive evolution in the management of fishery public services, promoting socio-economic development and the growth of economic actors, ensuring national security.

Facing the changes of the new public management model, the management of fishery public services is under the influence of subjective and objective factors. Additionally, the policy on fishery public services management has perplexed in planning lacks a synchronous mechanism, especially a mechanism to promote the development of fishery public services in the relationship between the role of the state and market regulation (Nam and Lan, 2023).

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Moreover, the policy-making process for developing fishery public services lacks opposition from scientific and social organizations and citizens. It led to the lack of synchronization and the limitation of connection between economy sectors and among the locality and the central. At the same time, they also lack cohesion between short-term, mid-term and long-term development goals or secondary and primary goals (Nam and Lan, 2023). After all, the root cause of the above limitations is the lack of scientific arguments as a solid basis for managing fishery's public services.

Coming from the above limitations, a study on managing fishery public services in coastal regions and islands in Vietnam is necessary, providing theoretical and practical significance. Nevertheless, management of the fishery public services is related to many contents and the concept of public service lacks unity. Therefore, based on conditions in Vietnam, fishery public services have three categories: public administration services, public non-business services and public utility services. Accordingly, to ensure the depth of the content of economic management, this study only focuses on considering the type of public administration service to serve economic actors involved in the fishery sector in the coastal regions and islands of Vietnam.

This article is structured into five sections. Following the introduction, the literature related to the management of fishery public services and evaluation criteria is presented in [Section 2](#). [Section 3](#) is the research methods, followed by the findings and discussion in [Section 4](#). [Section 5](#) presents some managerial implications. The conclusion is presented in [Section 6](#).

2. Literature review

2.1 Management of fishery public services

Through many ups and downs in the nation-building process, the state plays a crucial role in managing public services for the citizens. The trend of opening up for international economic integration combined to build a "State of the people, by the people, for the people" (Lincoln, 1863), the state has always affirmed its position as a subject in the management of public services to serve the essential needs of the citizens, enhance economic development and create sustainable growth.

Public services have a broad meaning because they cover all official duties and administration activities (Hung and Hanh, 2001). Generally, public services are non-profit services provided by the state or authorized by the state to other organizations under the state's control and regulation to meet the basic needs of the citizens, bring benefits to the community and are associated with the role of the state as the subject in social relations. Likewise, fishery public services are provided directly (public organization) or indirectly through private organizations authorized by the state to satisfy the essential needs of economic actors in the fishery sector (Nam and Lan, 2021).

state management is the impact of the state's powerful subjects, by many measures, on the managed objects to perform the state's internal and external functions based on the laws of social development for stability (Hai, 2012). Thus, state management is a crucial function in administrative apparatus operation that relies on authority to regulate relationships and behavior in society. On the whole, the concept of state management is analyzed in two main directions (Hai, 2012). Firstly, state management includes all activities of the administrative apparatus (executive, judicial and legislative activities). Secondly, state management has only executive activities. And so, to be consistent with the study, the concept of state management is approached in the first direction, giving a more general meaning. That is, state management is a specific form of management that demonstrates the state's function is to use power through the administrative apparatus with a system of policies to regulate, orient and dominate activities in society as well as the behavior of economic actors to achieve the goal of socio-economic development in each given period with the highest efficiency.

Based on the concept of state management, management of fishery public services is defined as the continuous, purposeful impact and demonstration of the power of the administrative apparatus through the contents of public service management for fishery to

meet essential needs and bring benefits to economic actors while contributing to promoting socio-economic growth and accomplishing management objectives in a given context and period.

2.2 Evaluation criteria of management of fishery public services

There are many measures for the status quo evaluation of state management, but scholars argue evaluation criteria, which were widely used in different research contexts and fields (OECD, 2009). Moreover, they are signs and a scale for managers to analyze, evaluate and draw conclusions about the results obtained after completing the goals.

Wholey (1979) developed the OUTCOME model (logic model) as a beneficial evaluation tool that facilitates effective program planning, implementation and evaluation. The OUTCOME model has been widely used to evaluate state management effectiveness in various fields and research contexts such as e-commerce (Tuan, 2013), urban housing development (Phu, 2018), or state-owned enterprises (Nam and Lan, 2022). The OUTCOME model has four components: inputs, activities, outputs and outcomes (Morrow, 2013). From the perspective of management of fishery public services in coastal and island areas of Vietnam, components are defined as follows: Inputs are resource factors used in the management process as finance, the provisions of the legal system, the capacity of cadres and civil servants and other physical resources used in the management process. Activities are the tasks of cadres and civil servants to turn inputs into outputs. Outputs are the number of results of solving the requirements of economic actors participating in the fishery sector expressed in documents, papers and administrative decisions of the management. Outcomes are intermediate impacts of outputs. It means carrying out policies and plans on fishery public services in coastal regions and islands.

According to Rossell (1993), public policies were evaluated through various criteria such as equity, efficiency, effectiveness and political feasibility. Equity tends to be social justice rather than equality in the view of policymakers and the American people. In addition, effectiveness is the level to which a policy achieves its goals. Efficiency is the ratio of inputs to outputs. In particular, they argued that efficiency, equity and effectiveness conflict with each other. It means policymakers must reckon the proper mix with the general public benefits.

OECD (2009) indicated six evaluation criteria of state management containing efficiency, sustainability, relevance, effectiveness, impact and coherence, namely:

Relevance refers to how well the objectives and intervention design align with and address the needs, policies and priorities of beneficiaries at both global and country levels, as well as those of partners. It also includes their ability to adapt and stay relevant if conditions change.

Coherence refers to how well the intervention aligns with other initiatives within a country, sector or institution.

Effectiveness refers to how well the intervention has achieved or is expected to achieve its goals and outcomes, including any different results across various groups.

Efficiency refers to how well the intervention has delivered or is expected to deliver outcomes quickly and effectively.

Sustainability refers to how likely the net benefits of the intervention are to continue or persist.

Impact refers to how much the intervention has caused or is expected to cause significant negative or positive, intentional or unintentional, higher-level effects.

The study by Thang (2019) confirms that two crucial criteria in the state management of valuation services are efficiency and effectiveness. The effectiveness of state management is presented through the degree of compliance with legal regulations and state power. Additionally, efficiency is assessed through the degree of achievement of the contents of state management compared to the set targets.

Doan (2021) evaluates the state management of social insurance collection for small and medium-sized enterprises in Vietnam through the relevance criteria. The relevance is analyzed

as follows: the relevance of direction goals and the provisions of the law, or the relevance of contents and operating methods, inspection and supervision of social insurance collection for small and medium-sized enterprises.

Until now, the evaluation criteria for fishery public services management have not been studied systematically and comprehensively. However, stemming from the theoretical and practical basis of legal development in Vietnam and the application of the evaluation criteria of [Rossell \(1993\)](#), [OECD \(2009\)](#), [Thang \(2019\)](#) and [Doan \(2021\)](#) combined with the OUTCOME model (logic model) together with consultation with experts in the field of management of fishery public services—specific public services owned by the state, we put forward five criteria including efficiency, sustainability, relevance, effectiveness and fairness are explained as follows:

The effectiveness of state management is a social category indicating the degree of compliance with the law and the degree of exercise of commanding and submissive power in the relationship between the management subject and object under fixed historical conditions ([Diem, 2018](#)). It is considered as the strength and productivity of the administrative apparatus to the social relationships and behavior of the managed objects. In other words, it's a confrontation between the output and the results achieved or expected to achieve the objectives (the OUTCOME model). Hence, the effectiveness of the fishery public service management is determined by comparing the results of the implementation of management contents of the administrative apparatus with the set of management objectives. Assessing the effectiveness of fishery public service management is to seek answers to questions, such as: *Are the objectives of fishery public service management appropriate? Or Is the level of performance of fishery public service management goals high or low?*

The efficiency of state management reflects the level of exploitation of inputs to create maximum operating results with minimum operating costs or an indicator that reflects operational productivity and efficient input cost uses ([Diem, 2018](#)). The efficiency of state management comes from an economic perspective and the relationship between inputs and outputs on the OUTCOME model. Thus, the efficiency of fishery public services management is the pawn management ability, rational use and saving resources of the administrative apparatus to accomplish the set objectives. In simpler terms, the efficiency of fishery public services management is assessed by comparing the highest achieved results in implementing the management contents of the administrative apparatus with the lowest operating costs to get the best results.

The relevance of state management is consistent with the oriented objectives, provisions of law, contents as well as operating methods and forms of inspection and supervision ([Diem, 2018](#)). To put it differently, it is the compatibility between the implementing process of the management contents of the administrative apparatus with the subjective and objective changes in the social economy. At the same time, the relevance of fishery public services management is assessed through policies issued with highly feasible and consistent international practices, ensuring compliance with the stated socio-economic development goals in general and the fishery sector in particular. At the same time, they must be consistent with inspection, supervision and handling of violations, ensuring the achievement of management requirements and a high consensus of economic actors involved in the fishery sector.

The sustainability of state management is demonstrated through the stability of orientation, legality and ensuring the harmony of interests for the parties involved and common interests for socio-economic development ([Diem, 2018](#)). In short, it is the degree of maintaining over time the results obtained from the management contents of the administrative apparatus. Thus, the sustainability of fishery public services management is reflected in policies issued synchronously, long-term stability and ensuring the harmony of benefits for economic actors involved in the fishery sector.

The fairness of state management is equitable in the policy issued and the result is commensurate with the capacity of the management subjects. Or it is the equitable and

unbiased treatment of social relations and management objects. The fairness of fishery public services management is the ultimate goal that the management contents of the administrative apparatus desire. In other words, the fairness of fishery public services management is reflected in the issued policies of equality powers and obligations depending on the capabilities and needs of economic actors.

3. Research methods

3.1 The Importance Performance Analysis model

We chose the importance performance analysis (IPA) model developed by [Martilla and James \(1977\)](#) to evaluate fishery public services management in the coastal regions and islands of Vietnam based on the difference between the opinions of cadres and civil servants about the importance and performance of the evaluation criteria, creating a two-dimensional chart to simplify the interpretation of gathered data. The IPA model was widely used by scholars in various research on hotel and tourism services (e.g. [Martin, 1995](#); [Truc, 2017](#)), management and marketing (e.g. [Martilla and James, 1977](#)), dentistry and healthcare (e.g. [Nitse and Bush, 1993](#); [Quyên and Tuan, 2019](#)), education (e.g. [Alberty and Mihailik, 1989](#); [Trung and Loan, 2020](#)), banking (e.g. [Ennew et al., 1993](#)).

[Mikulik \(2007\)](#) found some limitations when using the original IPA model. So, the researchers reformed with new methods based on original IPA model as integrated Kano-IPA, IPA-IGA and IGA-PRCA ([Mikulic, 2007](#)). However, the researchers stated that IGA (Improvement Gap Analysis) lacks a strictly underpinning and crucial features are a function of the performance features ([Mikulic, 2007](#)). At the same time, PRCA (Penalty-Reward Contrast Analysis) is only employed for a restricted set of elements or features of a product or service ([Mikulic, 2007](#)).

The characteristics of fishery public services, in particular and services, in general, are intangible and difficult to measure five criteria in the direction of the state management approach. Therefore, using the IPA model is most feasible because this model evaluates the quality of management based on the importance and performance of criteria set for state management agencies of fishery public services based on the cadre's and civil servants' opinions.

The IPA model is made by comparing the difference between two factors that constitute the decision of the survey subjects: importance and performance and they are divided into four quadrants based on the mean score of two factors. If $P - I$ greater or equal to 0, the management of fishery public services is good and on the contrary, if $P - I$ lower than 0, it is poor.

[Figure 1](#) is described as follows:

Quadrant I: The criteria falling into quadrant I hold crucial significance for fishery public service management, yet their performance is currently poor. Consequently, state management agencies should actively enhance these criteria.

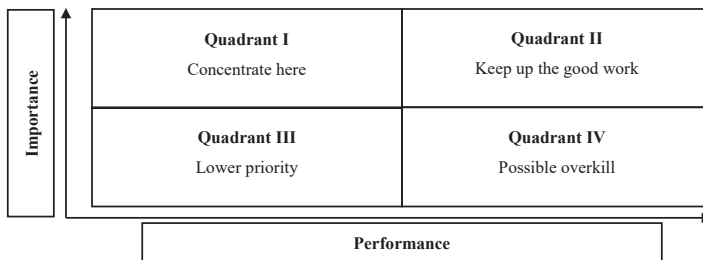


Figure 1. The importance performance analysis model. **Source:** [Martilla and James \(1977\)](#)

Quadrant II: The criteria falling into quadrant II are crucial for fishery public service management and they are also being done well by state management agencies. Consequently, state management agencies should continue, sustain and stimulate these criteria.

Quadrant III: The criteria falling into quadrant III lack crucial and their performance is also currently poor. Consequently, state management agencies do not need to allocate resources to prioritize improving these criteria.

Quadrant IV: The criteria falling into quadrant IV are crucial for fishery public service management, but they are done well. Consequently, the state management agencies should not invest extra resources for these criteria since it would lead to wastage.

3.2 Scale

Based on the synthesis result of the above theories and practical research (e.g. OECD, 2009; Thang, 2019; Doan, 2021), this study built a preliminary scale of the five evaluation criteria for managing fishery's public services with 27 indicators.

For the preliminary scale to meet the research purpose, we executed discussions with five cadres at the Directorate of Fisheries and twenty experienced department managers at the Department of Agriculture and Rural Development of the provinces under study. It was to meticulously examine the contents related to indicators, allowing us to modify the scales by adding or omitting indicators to be better consistent with the actual situation. Moreover, we carried out in-depth interviews with five experts specializing in public administration to concur with the chosen criteria, illuminate the content of the evaluation criteria and address any issues that arose during the discussions.

The results indicated all members participating in the discussion and in-depth interviews agree with the proposed criteria, including effectiveness, efficiency, relevancy, sustainability and fairness. Additionally, we modified the wording to align with the public sector context and the educational background of the survey respondents. The survey questions for all criteria utilized in the study are outlined in Table 1.

The questionnaire is designed in two parts: Part A aims to collect general information of the respondents, serving descriptive statistics. Part B is designed to collect respondents' options on the importance and performance of evaluation criteria for fishery public services management in coastal and island areas. The study used a five-level Likert scale to gather consensus on the importance and performance of the indicators. In which, importance: 1 – Not important, 2 – Less important, 3 – Normal, 4 – Important, 5 – Very important with the meaning of mean score: 1.00–1.80: Very unimportant, 1.81–2.60: Not important, 2.61–3.40: Normal,

Table 1. Sample characteristics

Characteristics		Number	Ratio (%)
Gender	Male	202	63.3
	Female	117	36.7
Age	Less than 20 years old	0	0.0
	20–30 years old	15	4.7
	30–40 years old	158	49.5
	40–50 years old	124	38.9
	More than 50 years old	22	6.9
Education	High school	0	0.0
	Intermediate education and college	29	9.1
	University	237	74.3
	Post-graduate	53	16.6
Position	Cadre	208	65.2
	Civil servant	111	34.8

Source(s): The authors' calculation

3.41–4.20: Important, 4.21–5.00: Very important. Performance: 1 – Very poor, 2 – Poor, 3 – Normal, 4 – Good, 5 – Very good with the meaning of mean score: 1.00–1.80: Very poor, 1.81–2.60: Poor, 2.61–3.40: Normal, 3.41–4.20: Good, 4.21–5.00: Very good.

3.3 Sample and data collection

The coastal regions and islands of Vietnam have 28 provinces and cities. To ensure the research objectives, we selected five provinces representing three coastal regions and islands, including the North Coast (Thai Binh province), the Central Coast (Nghe An and Binh Dinh provinces) and the South Coast (Kien Giang and Ca Mau provinces). With geographical advantages and investment in marine economic development, the fishery is the largest sector and has a high growth rate in the economic structure of the five provinces. Nghe An province has the lowest level of development, followed by Thai Binh, Binh Dinh and Ca Mau provinces and Kien Giang province has the highest level of development (Nam and Lan, 2021).

Before starting the survey, participants were informed of the study's aims and their right to refuse participation or withdraw at any time. The authors confirm that this study follows relevant ethical guidelines for human subjects and that participants' anonymity and confidentiality were protected throughout the study.

Hair *et al.* (2010) argued that the smallest sample size for exploratory factor analysis (EFA) should be 50, with a preference for 100 or more. A ratio of 5:1 or 10:1 between observations and an analytic variable is recommended to achieve a sample size that guarantees reliability. Our study has 27 indicators, so the required sample size is calculated to be 270. To minimize the occurrence of invalid answers, we surveyed 330 cadres and civil servants.

This study uses two sampling methods for two research subjects (Central-level cadres and civil servants and local-level cadres and civil servants) to collect data. Firstly, the convenient sampling method for cadres and civil servants at the Directorate of Fisheries. Secondly, the stratified random sampling method for cadres and civil servants in five provinces. Besides, each province selects five districts, corresponding to the five Departments of Agriculture and Rural Development and 25 Divisions of Agriculture and Rural Development. According to statistics in 2021 surveyed by the Departments and Division of Agriculture and Rural Development of five provinces, the average number of civil servants per Department is 112 and each Division is 15. Hence, the votes are distributed as follows: 30 votes for cadres and civil servants at the Directorate of Fisheries, 50 votes for cadres and civil servants at 05 Departments of Agriculture and Rural Development (10 votes per Department of Agriculture and Rural Development), 250 votes for civil servants at 25 Division of Agriculture and Rural Development (10 votes per Division of Agriculture and Rural Development). We choose an equal ratio among survey provinces to ensure fairness and objectivity in the evaluation process. The survey period is from September 2021 to January 2022. The votes were sent directly and indirectly (electronic mail) to cadres and civil servants working at the Directorate of Fisheries, Departments of Agriculture and Rural Development and Division of Agriculture and Rural Development.

After screening the data, the study obtained 319 valid responses achieving a response rate of 96.7% (30 votes from the Directorate of Fisheries, 47 votes from five Departments of Agriculture and Rural Development and 242 votes from 25 Divisions of Agriculture and Rural Development). Male account for 63.3% and women account for 36.7%. Among the respondents, 95.3% were of middle aged (over 30 years old), 90.9% possessed university and postgraduate qualifications and 65.2% were cadres. These results are consistent with Vietnam's public sector practice, where cadres and civil servants are predominantly male, aged between 30 and 50 years old and highly educated (see Table 1).

4. Findings and discussion

4.1 Reliability, convergent and discriminant

Table 2 shows that the evaluation criteria are internally consistent because Cronbach's Alpha value is above the threshold of 0.6. At the same time, the corrected item-total correlation

Table 2. Survey items and reliability for measures in the study

Sign	Items	Importance Corrected item-total correlation	Cronbach's alpha	Item loadings	Performance Corrected item-total correlation	Cronbach's alpha	Item loadings
Effectiveness							
Effe1	The degree of responsiveness to the publicity and transparency of fishery public service management policies	0.610	0.841	0.898	0.672	0.845	0.867
Effe2	The level of adequate, synchronous and timely promulgation of fishery public service management policies	0.408		0.893	0.731		0.845
Effe3	The level of legal compliance and strict enforcement of fishery public service management policies at competent state agencies	0.589		0.888	0.562		0.832
Effe4	The level of harmonious and close coordination between competent agencies in the administrative apparatus for managing fishery public services	0.603		0.872	0.693		0.814
Effe5	The level of compliance with the policies of fishery public service management from economic actors	0.697		0.864	0.666		0.803
Effe6	The level of inspection, supervision and handling of violations in the process of managing fishery public services is a deterrent	0.502		0.856	0.560		0.794
Efficiency							
Effi1	The level of completion of the plan to develop fishery public services in the localities	0.521	0.832	0.895	0.615	0.803	0.816
Effi2	The level of operational efficiency of the administrative apparatus managing fishery public services to meet the requirements of comprehensive management and quality assurance	0.508		0.883	0.707		0.798
Effi3	The level of efficiency of communication and consulting on legal documents in localities	0.519		0.878	0.605		0.785
Effi4	The level of efficiency in managing fishery public services to meet socio-economic development goals in localities in association with the national public service development strategy	0.609		0.870	0.553		0.732
Effi5	The satisfaction level of economic actors about the management of fishery public services	0.493		0.868	0.617		0.648
Effi6	The level of inspection and supervision of fishery public service management is open and transparent	0.514		0.865	0.660		0.627
Effi7	The level of use of the state budget is commensurate with the efficiency of fishery public service management in localities	0.532		0.853	0.714		0.621

(continued)

Table 2. Continued

Sign	Items	Importance Corrected item–total correlation	Cronbach's alpha	Item loadings	Performance Corrected item–total correlation	Cronbach's alpha	Item loadings
Relevance							
Rel1	Policies to manage fishery public services are consistent with socio-economic development goals and receive the consensus of economic actors	0.691	0.812	0.892	0.707	0.832	0.814
Rel2	Policies to manage fishery public services consistent with the development of economic actors and potentials and strengths in the fishery sector	0.592		0.884	0.633		0.790
Rel3	Policies to manage fishery public services consistent with international practices and agreements	0.502		0.880	0.582		0.774
Rel4	Policies to manage fishery public services are highly feasible and consistent with the law of a socialist-oriented market economy	0.579		0.877	0.557		0.630
Rel5	Policies to manage fishery public services ensure objectivity and are consistent with inspection, supervision and handling of violations	0.409		0.851	0.601		0.625
Sustainability							
Sus1	Policies to manage fishery public services aim to ensure long-term benefits for economic actors involved in the fishery sector	0.517	0.805	0.889	0.478	0.822	0.808
Sus2	Policies to manage fishery public services have a stable vision and orientation and adapt to the stages of international economic integration	0.586		0.871	0.650		0.799
Sus3	Policies to manage fishery public services are specific, limited in adjustment and do not conflict or overlap with other relevant policies	0.601		0.866	0.622		0.760
Sus4	Policies to manage fishery public services have inheritance and high predictability of fluctuations in the fishery sector	0.491		0.855	0.543		0.678
Sus5	Policies to manage fishery public services create a solid legal framework, not too rigid and not too detailed	0.507		0.832	0.670		0.655
Fai1	Policies to manage fishery public services towards the principle of equality and equitable distribution of benefits to economic actors involved in the fishery sector	0.595	0.816	0.885	0.652	0.790	0.812
Fai2	Policies to manage fishery public services create favorable conditions for economic actors involved in the fishery sector to simply access and use the service	0.489		0.869	0.608		0.796
Fai3	Policies to manage fishery public services ensure the rights, responsibilities and obligations of economic actors involved in the fishery sector	0.597		0.850	0.644		0.787
Fai4	Policies to manage fishery public services ensure a balance between socio-economic development and development in the fishery sector	0.490		0.843	0.615		0.755

(continued)

Table 2. Continued

Sign	Items	Importance Corrected item–total correlation	Cronbach's alpha	Item loadings	Performance Corrected item–total correlation	Cronbach's alpha	Item loadings
	Barlett's Test	KMO = 0.807			KMO = 0.812		
		Approx. Chi-Square		536.757	Approx. Chi-Square		565.324
		df		578	df		578
		Sig		0.000	Sig		0.000
	Eigenvalues	1.367			1.390		
	% of Variance	80.345			80.498		
Source(s): The authors' calculation							

coefficient is higher than 0.3 (Hair *et al.*, 2010). These results demonstrated that the criteria meet the standards for conducting exploratory factor analysis (Nunnally and Bernstein, 1994). Table 2 also shows that the EFA results obtained a KMO coefficient above the threshold of 0.5 and Bartlett's test is statistically significant with a Sig. of 0.000 (less than 0.05). Additionally, five evaluation criteria were extracted with Eigenvalues greater than 1.0 and the Total Variance Explained exceeded 50% (Hair *et al.*, 2010). Thus, 27 indicators were selected to satisfy the requirements of discriminant and convergent validity (Hair *et al.*, 2010).

4.2 Importance Performance Analysis

Table 3 reveals that the importance scores (mean) range from 3.63 to 4.18, indicating their importance in fishery public services management. The performance scores (mean) range from 3.20 to 4.13. The results of the Paired Sample *t*-Test show a Sig. value of 0.000, which is below the threshold of 0.05, indicating a discrepancy in how cadres and civil servants in fishery public services management in coastal regions and islands assess importance and performance levels. The predominance of negative differences signifies that the performance levels are assessed to be lower than the importance levels as rated by cadres and civil servants.

The mean is indispensable for the IPA analysis to represent the four quadrants as recommended by Martilla and James (1977) and Lynch *et al.* (1996), in which the mean should be the median. The median value of the importance and performance of the indicators is to be classified into four quadrants of the IPA model to put forward an assessment of the management of fishery public services in coastal and island areas. The analysis results show that the median of importance is 4.02 and the performance is 3.58. The study provides an IPA analysis model shown in Figure 2.

The IPA model identifies four quadrants with different levels of development concentration as follows:

Quadrant I (concentrate here): This quadrant has eleven indicators consisting of Effe2, Effe3, Effe4, Effe6, Effi7, Effi1, Effi2, Effi6, Fai1, Fai2, Rel2. The indicators falling into quadrant I are assessed crucial by cadres and civil servants but with low performance. Based on this result, the state management agencies for fishery public services need to actively enhance these criteria.

Quadrant II (Keep up the good work): This quadrant has five indicators with Effe1, Effe5, Effi3, Effi4, Fai4 and Sus1. They are assessed for crucial and good performance by cadres and civil servants. Therefore, the state management agencies for fishery public services need to continue, sustain and stimulate these criteria.

Quadrant III (Lower priority): This quadrant has three indicators containing Sus2, Sus3 and Sus4. They are assessed both low in importance and performance. Therefore, the state management agencies for fishery public services do not need to allocate resources to prioritize improving these criteria.

Quadrant IV (Possible overkill): This quadrant has seven indicators with Effi5, Fai3, Rel1, Rel3, Rel5, Rel and Sus5. They are assessed as less critical, yet the performance level is good.

Table 3. Importance performance analysis

Indicators	Importance (I) (mean)	Performance (P) (mean)	P - I	Sig
Effectiveness				
Effe1	4.04	3.63	-0.41	0.000
Effe2	4.12	3.44	-0.68	0.000
Effe3	4.15	3.50	-0.65	0.000
Effe4	4.14	3.40	-0.74	0.000
Effe5	4.06	3.72	-0.34	0.000
Effe6	4.11	3.33	-0.78	0.000
Efficiency				
Effi1	4.16	3.20	-0.96	0.000
Effi2	4.15	3.50	-0.65	0.000
Effi3	4.13	3.65	-0.48	0.000
Effi4	4.07	3.75	-0.32	0.000
Effi5	4.00	3.85	-0.15	0.000
Effi6	4.10	3.41	-0.69	0.000
Effi7	4.18	3.20	-0.96	0.000
Relevance				
Rel1	4.00	3.60	-0.40	0.000
Rel2	4.13	3.57	-0.56	0.000
Rel3	3.88	3.72	-0.16	0.000
Rel4	3.80	3.88	0.08	0.000
Rel5	4.01	3.75	-0.26	0.000
Sustainability				
Sus1	4.05	4.13	0.08	0.000
Sus2	3.63	3.57	-0.06	0.000
Sus3	3.95	3.42	-0.53	0.000
Sus4	3.69	3.43	-0.26	0.000
Sus5	3.75	3.88	0.13	0.000
Fairness				
Fai1	4.03	3.37	-0.66	0.000
Fai2	4.12	3.48	-0.67	0.000
Fai3	3.98	3.59	-0.39	0.000
Fai4	4.04	3.81	-0.23	0.000

Source(s): The authors' calculation

Therefore, state management agencies for fishery public services should not invest extra resources for these criteria but also necessary to maintain some currently stable indicators.

Thus, 27 indicators of five evaluation criteria for fishery public services management through a survey of cadres and civil servants in five provinces representing the coastal regions and islands in Vietnam distributed in four quadrants of the IPA model. It proved the status quo of fishery public services management of state management bodies in the coastal regions and islands is inefficient and ineffective because Quadrant 1 has eleven indicators. This result is consistent with the current situation of management of fishery public services of coastal and island localities for the following reasons:

First, the system of plans and legal policies promulgated has not fully met management requirements. In fact, the level of completion of plans in fishery public services development in localities is assessed by cadres and civil servants with a high level of importance but a low level of performance. In addition, although state management agencies have made many efforts in formulating policies and promulgating laws on fishery public services, the provisions in these documents are still very general and principled. There is no document adjusting practical aspects of fishery public services consistent with the socialist-oriented market economy. The survey results also showed that the effectiveness of management of fishery

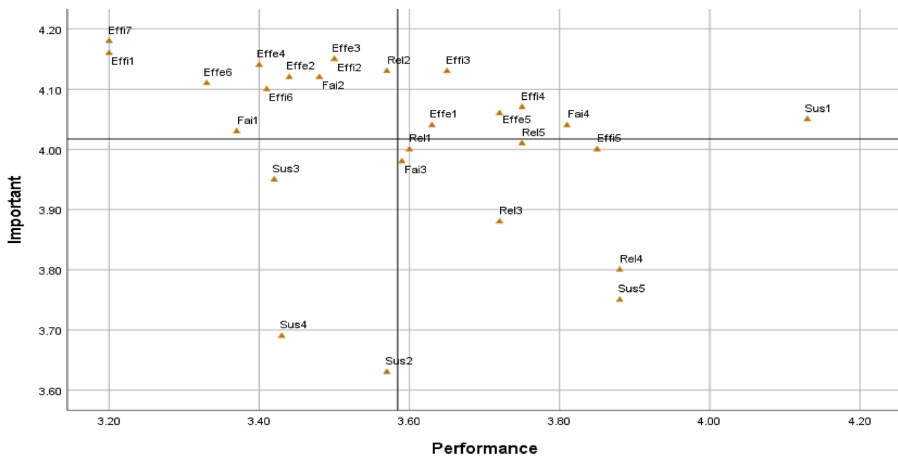


Figure 2. The IPA model. Source: The authors' calculation

public services in coastal and island areas is still not high, with which the mean score of cadres and civil servants said that “the level of efficiency in managing fishery public services to meet socio-economic development goals in localities in association with the national public service development strategy” (Effi4) has a lower level of performance than importance ($-0,32$).

Second, the state management apparatus conducts vertical management without horizontal control. The lack of synchronization of fishery public services management and the institutional environment for technical input services for fishery production (aquatic breeds) is not uniform according to the decentralization process. In addition, the assessment results also show that the effectiveness and efficiency of the public service management apparatus are not high, which is considered average. In particular, the mean scores of cadres and civil servants said that “the level of harmonious and close coordination between competent agencies in the administrative apparatus for managing fishery public services” (Effe4) and “the level of operational efficiency of the administrative apparatus managing fishery public services to meet the requirements of comprehensive management and quality assurance” (Effi2) has a performance level lower than the importance level of $-0,74$ and $-0,65$.

Thirdly, the results of the analysis of the current state of the financial mechanism for fishery economic development combined with the empirical survey findings that cadres and civil servants have disclosed, the budget for the management of fishery public services at state agencies in localities is not consistent with the assessment score of only 3.20 (level average) through efficiency (Effi7).

Fourth, the effectiveness, effectiveness and suitability of inspection and supervision of fishery public services are not high. The cadres and civil servants observed that “the level of inspection, supervision and handling of violations in the process of managing fishery public services is deterrent” (Effe6) and “the level of inspection and supervision of fishery public service management is open and transparent” (Effi6) has a difference in performance compared to the importance of $-0,78$ and $-0,69$. Moreover, cadres and civil servants also identified the lack of conformity in inspection and supervision by “policies to manage fishery public services ensure objectivity and are consistent with inspection, supervision and handling of violations” (Rel5) with a performance level lower than the importance level of $-0,26$. It means that the current inspection and supervision activities are not closely aligned with the policy contents on the fishery public services management and are spontaneous on inspection contents.

This research sets itself apart from previous studies by adopting the IPA model to measure the evaluation criteria of fishery public service management from the perspective of cadres and civil

servants. This approach is more detailed and realistic compared to previous models of research. More importantly, our study investigated in the context of fishery public services management, which is a specific sector, hence offering distinct theoretical and practical contributions compared to previous research. The findings from the IPA model analysis provide state management agencies in charge of fishery public services in coastal and island areas with a better and more immediate understanding of past management practices. Therefore, this research could serve as a blueprint for other studies on the evaluation criteria of state management in the public sector in the future.

5. Implications

This study offers managerial insights into both theoretical and practical aspects. Theoretically, analyzing fishery public services management evaluation criteria contributes to the existing literature on state management criteria.

Practically, this study contributes valuable information for the government and state management agencies to enhance fishery public services management as follows:

Firstly, to improve management effectiveness, state management bodies for fishery public services should strengthen coordination with stakeholders in the administrative system. Besides, state management bodies need to thoroughly grasp the views of the Party and propose to the competent authorities to abolish, supplement and perfect policies, legal documents and regulations for the fishery's public services to create a solid legal basis for management and the development of the fishery industry. Additionally, state management bodies need to strictly implement the inspection, supervision and handling of violations in the management of fishery public services by closely inspecting and monitoring the provision of public services by lower-level state agencies to economic actors to prevent and repel violations by state agencies in the localities.

Secondly, to improve management efficiency, the state management agencies need to renew the formulation, monitoring and evaluation of the implementation of medium-term and annual plans for developing fishery public services. At the same time, they also need to improve the quality of cadres and civil servants and innovate styles and methods of handling administrative procedures for economic agents to enhance the efficiency of completing the plan to develop fishery public services in localities. Moreover, the state bodies need to strengthen the application of information technology in fishery public services management. Besides, the state bodies need to build data processing centers to provide information for functional departments to perform management operations to improve the efficiency of state budget spending on fishery public service management activities.

Thirdly, cadres and civil servants assessed that state bodies failed to ensure equitably distributed benefits of fishery public services among economic actors involved in the fishery sector. The level of convenience of economic actors in accessing fishery public services is not high, leading to benefits that have not been distributed equitably to them. Thus, the state management agencies for fishery public services need to create a favorable environment for economic actors. Therefore, it can efficiently improve service quality and better serve citizens' basic needs, ensure the harmony between economic development and the implementation of social justice, creating the foundation and drive for the fishery's sustainable development.

Finally, cadres and civil servants assessed that fishery public services management policies are not consistent with the development of economic actors and potentials and strengths in the fishery sector. In the context of the market economy, the state management agencies for fishery public services need to develop specific strategies and plans, closely following the actual production situation of the locality. Therefore, it can protect the rights and benefits of economic agents, implement social justice, ensure social security and improve their living standards.

6. Conclusion

Our research surveyed and determined the importance and performance of criteria and indicators for evaluating the management of fishery public services in coastal and island areas.

At the same time, based on the analysis results of the IPA model, it is a crucial scientific basis for the authors to make some policy implications for the effectiveness and efficiency improve in fishery public services management of coastal and island localities in Vietnam in the future.

However, this study has some limitations. This study has only been conducted in state management agencies of fishery public services of five localities representing three coastal regions of Vietnam, so the representativeness of the study is limited. The research results may also not represent other regions and localities of Vietnam with different characteristics. Therefore, future studies need to be conducted in various localities to have an overview of the current state of fishery public service management.

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