

POTENTIAL DEVELOPMENT OF MARINE ECONOMY IN KHANH HOA PROVINCE

Tran Thi Quynh Giang^a, Nguyen Thi Thuy Nga^b

^aUniversity of Economics – Technology for Industries, Vietnam.

^bUniversity of Labor and Social Affairs, Vietnam.

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ABSTRACT

This study is conducted to assess, investigate the potential development of marine economy in Khanh Hoa province. Data were collected from surveying lecturers, researchers on marine economics, board of directors enterprises on marine economy in Khanh Hoa province. The primary sources of data collected from March 2020 to May 2020 in Vietnam. Based on the collected data, we employ both qualitative and quantitative methodology along with some tools such as descriptive statistics, Cronbach's Alpha, T-test to analysis, evaluate and measure the potential development of marine economy in Khanh Hoa province. The results show that there are four (4) attributes of the potential development of marine economy in Khanh Hoa province. Based on the findings, some recommendations are given to enhance the development of marine economy in Khanh Hoa province in a sustainable manner.

Keywords: marine economic, development, potential, Khanh Hoa province

JEL codes: F63, O10, Q32

1. INTRODUCTION

Khanh Hoa province is advantageous both in terms of natural, economic and social conditions in the development of marine economy. The most valuable resource and becoming a comparative advantage of Khanh Hoa province is the sea and island environment. They are geographical location, climate factors, weather, lands, water surface and marine ecosystems. The government of Khanh Hoa province considers the marine economy to be a key economic area, so the policies and guidelines of the province are all directed to the development of the marine economy (Bui, 2016a).

The outstanding potential of Vietnam's marine economy in general and Khanh Hoa province in particular is a resource. In addition, Khanh Hoa province has very favorable conditions to develop sea and island tourism, Nha Trang beach was voted by many international journals as one of the most beautiful beaches on the planet.

Khanh Hoa is one of the provinces where marine resources play an important role in the development of the economy. Khanh Hoa province has a long and beautiful coastline, rich and diverse resources with large reserves, creating favorable conditions for the development of many marine economic sectors such as maritime economy, shipbuilding economy, culturing and catching aquatic products, developing sea tourism, etc. Marine economy in Khanh Hoa province contributes to GDP of the province with a high proportion. However, at present, the marine economy in Khanh Hoa province has not developed well to its potential. Therefore, this study is conducted to assess, investigate the potential development of marine economy in Khanh Hoa province which is necessary and meaningful.

2. LITERATURE REVIEW

Luong (2018) said that the marine revenue is one of the largest contributors in Kien Giang province. Although important strides have been achieved, the marine economy in Kien Giang province has not yet promoted its available strengths. The research results indicate (i) the strengths of the marine economy in Kien Giang province; (ii) challenges in developing marine economy in Kien Giang province in the context of regional and international economic integration and (iii) orientations and solutions for development of marine economy in Kien Giang province in the next time.

Le and Nguyen (2019) conducted research on the potentials of marine economic development of Nam Dinh province. Nam Dinh province has 3 districts bordering the sea, including Giao Thuy district, Hai Hau district and Nghia Hung district; it has a coastline of more than 70 km, a fertile land, and has the potential for integrated coastal economic development. The authors presented and analyzed the geographical location of the 3 coastal districts including Giao Thuy, Hai Hau and Nghia Hung; introduce famous tourist areas along Nam Dinh coast, etc. Since then, the authors assert, with the potential of the sea, develop marine economy in Nam Dinh province focusing on the development of industries and services in the coastal area; and combine aquaculture with fishing in 3 districts adjacent to the sea.

Study on marine economy in Khanh Hoa province, research results of Bui (2016a) show that: (i) Orientations and goals for the development of marine economy in Khanh Hoa province; (ii) achievements of marine economic development in Khanh Hoa province from 2005 to 2015; (iii) limitations and shortcomings that need to be overcome in the process of marine economic

development in Khanh Hoa province; and (iv) a number of solutions to key maritime economic sectors. Bui (2016b) affirmed the development of marine economy in Khanh Hoa province increasingly asserting the important role and position in the provincial economic structure in the period of international integration. In addition to many advantages, the development of marine economy in Khanh Hoa province still faces many difficulties and challenges, requiring accurate recognition and efforts to overcome difficulties of the government, businesses and people local.

The inheritance of previous studies and based on the results of expert interviews, we design, analyze and measure component attributes of the potential development of marine economy in Khanh Hoa province, thus providing some recommendations to improve the potential development of marine economy in Khanh Hoa province, to enhance the development of marine economy in Khanh Hoa province in a sustainable manner.

3. RESEARCH METHODS AND SAMPLE

Research sample

The research sample is an important factor that determines the success of a quantitative study. Generally, there are two methods to choose: Random sampling and haphazard sampling. The random sampling is more widely used and brings more objective results. In this paper, we randomly select the lecturers, researchers on marine economics, board of directors enterprises on marine economy in Khanh Hoa province.

We sent over 150 surveys forms to lecturers, researchers on marine economics, board of directors enterprises on marine economy in Khanh Hoa province and within 1.5 months and collected 120 surveys forms. After removing unqualified survey forms, the official sample included 105 lecturers, researchers on marine economics, board of directors enterprises on marine economy in Khanh Hoa province.

Analysis approach

Items are measured based on the Likert scale from 1: Strongly disagree to 5: Strongly agree.

To test the attributes, we use SPSS 22 software to perform the following analysis: Descriptive statistics; reliability test of scale by Cronbach's Alpha scale and T-Test.

Table 1: The attributes of potential development of marine economy in Khanh Hoa province

Code	Scale
PDME1	Potential for maritime economy development
PDME 2	Potential for shipbuilding economic development
PDME 3	Potential for development of aquaculture and aquatic product processing
PDME 4	Potential for development of marine tourism

4. RESEARCH RESULTS

Descriptive Statistics

Table 2: Respondents by Job description, age

	Frequency	Percent	Cumulative Percent
Job description			
Board of directors of the firms	34	32.4	32.4
Lecturers	37	35.2	67.6
Researchers	34	32.4	100.0
Age			
Less 35 ages	37	35.2	35.2
Over 35 ages	68	64.8	100.0
Total	115	110.0	

Table 2 shows that among the 105 respondents, board of directors of the firm accounted for 32.4%, lecturers accounted for 35.2% while the remaining 32.4% or 34 respondents were researchers. Of these, 37 of them less 35 ages, accounting for 35.2% and 64.8% of the participants were over 35 ages.

Table 3: Descriptive analysis of attributes of the potential development of marine economy in Khanh Hoa province

	N	Minimum	Maximum	Mean	Std. Deviation
PDME1	105	2.0	5.0	3.80	.739
PDME2	105	2.0	5.0	3.77	.812
PDME3	105	2.0	5.0	4.12	.781
PDME4	105	2.0	5.0	4.01	.766
Valid N (listwise)	105			3.93	

Table 3 indicates that the respondents agree with the dependent variables of “the potential development of marine economy in Khanh Hoa province”, where four (4) attributes were quite high with an average of 3.93 compared with the highest of the Likert 5-point scale. All these four (4) attributes were rated at an average of 3.77 or higher.

Cronbach’s Alpha

The potential development of marine economy in Khanh Hoa province has been measured by the Cronbach's Alpha. Results of testing Cronbach’s alpha of attributes are presented in Table 4 below.

Table 4: Results of Cronbach’s Alpha Testing of Attributes

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Potential development of marine economy in Khanh Hoa province: Cronbach's Alpha: .718				
PDME1	11.90	2.356	.410	.692
PDME2	11.93	2.371	.349	.698
PDME3	11.58	2.073	.429	.670
PDME4	11.70	1.906	.512	.667

The results also show that attributes of the dependent variables have Cronbach's Alpha coefficients that are greater than 0.6, and the correlation coefficients of all attributes are greater than 0.3. So, all the attributes of the dependent variables are statistically significant (Hoang and Chu, 2008; Hair et al, 2009).

T-Test

Comparing the results of the evaluation of the potential development of marine economy in Khanh Hoa province between the participants have different age (less 35 ages and over 35 ages) is shown in Table 5.

Table 5: Differences of the potential development of marine economy in Khanh Hoa province between the participants have different age- Independent Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PDME	Equal variances assumed	.349	.556	.220	103	.826	.02007	.09109	.16059	.50074
	Equal variances not assumed			.227	80.284	.821	.02007	.08856	.15616	.51970

According to the results of Table 5, Sig Levene's Test = 0.556 more than 0.05; the variance between the two the participants have different age is not different. Moreover, Sig value T-Test = 0.826 > 0.05, which means there is not statistically significant difference in the level of potential development of marine economy in Khanh Hoa province evaluation by participants who have different age (Hoang & Chu, 2008; Hair et al, 2009).

5. DISCUSSION

Located in the South Central Coast region, Khanh Hoa province has ideal natural conditions, geographical location and a rich history of culture, all seem to meet three factors: "Clement weather, favorable terrain and concord among the people". It is these things that helped Khanh Hoa promote the advantages and potentials, driving the development of the locality and the South Central region.

Potential for maritime economy development

Khanh Hoa province owns 385 km of coastline with many islands, bays and estuaries which are very convenient for the seaport construction. Currently, the seaport system of Khanh Hoa includes:

Cam Ranh International Airport was formed and put into operation, creating favorable conditions for direct attraction of international visitors not only to Khanh Hoa but also to Ninh Thuan, South Central and Western provinces. Originally, has created a link to develop cooperation in terms of tourism. Cam Ranh Port can accommodate ships of 50,000 tons. In 2018, Cam Ranh

International Airport welcomed more than 6 million passengers, exceeding the capacity compared to the existing terminal (expected to be 8 million passengers / year by 2030). According to the plan approved by the Government, by 2020 and oriented to 2030, Cam Ranh International Airport is capable of receiving Airbus 320, 321, 300-600, Boeing 767, 777, 747 and the same kind of airplanes; Uses 2 runways and landings. Currently, Cam Ranh International Airport has had international routes to: Russia, Korea, Hong Kong, Guangzhou, Chengdu, Thailand, etc. Cam Ranh International Port focuses on exploiting 3 areas: Supplying maritime services for military and tourist ships; repairing terminals and providing travel services for crews and tourists.

Nha Trang Port is a port with 4 berths, the longest is 215m; it can handle general cargo ships of a tonnage of up to 20,000 DWT and passenger ships which have capacity of up to 60,780 GT. The port has mooring depth from 8.5 to 11.8m; the total warehouse area of the port is 80,000m². According to the detailed plan of the South Central Sea port group by 2020 and orientation to 2030, Nha Trang Port will be planned and reorganized international passenger wharves, domestic tourists, marinas and specialized passenger wharves. Since 2016, Khanh Hoa province has developed a development project towards a modern international tourism hub port, ended the transportation of goods through Nha Trang Port; aimed to bring Nha Trang Port to welcome at least 150,000 international tourists traveling by sea and 1 million domestic tourists to visit sea and islands routes.

Van Phong Port has been chosen by the Government as the place to build international container entrepôt ports. The entire coastline in Van Phong Bay area can build a wharf up to 30km, longer than the total length of the existing wharfs in the country. As planned, the total cargo through the port will reach 17 million TEUS / year by 2020, the same as the current capacity of Singapore port. Nam Van Phong port can accommodate ships from 30,000 DWT to 70,000 DWT, Bac Van Phong port can receive ships of 50,000 DWT. Van Phong port is currently on the way of formation but is actually in charge of transshipment for a part of imported petroleum to the whole country.

Potential for shipbuilding economic development

Currently, Khanh Hoa province has established 02 shipbuilding establishments in Ninh Hoa and Cam Ranh which are able to build new ships of more than 50,000 DWT. In the first 10 months of 2019, Hyundai-Vinashin shipyard with the largest scale in Southeast Asia built and exported 15 ships with an export turnover of 489.5 million \$, up 42.42% over the same period last year. In addition, the establishment of Cam Ranh Shipyard invested by Vietnam Shipbuilding Industry Corporation has marked a remarkable development of shipbuilding industry in Khanh Hoa, along with the appearance of more and more Small and medium-sized factories to serve the

construction and repair of coastal and inland watercraft for tourism and sports have increasingly affirmed the ability to build and repair ships of Khanh Hoa.

Potential for development of aquaculture and aquatic product processing

With a coastline of more than 385km and more than 200 islands, Khanh Hoa is well aware that the aquaculture sector has a very important position and role in the local economy. At present, Khanh Hoa has a fishing fleet of nearly 10,000 ships with a capacity of over 340,000 CV of which offshore fishing ships account for over 1,100; the province's aquaculture area is over 5,200 hectares; annual aquatic product output reaches about 100,000 tons; seafood export turnover is about USD 0.5 billion per year. Khanh Hoa has 54 seafood processing factories for export, of which 26 factories meet standards for European market, in the first 10 months of 2019; 97,000 tons of seafood were processed, exported reached over 522 million USD, accounting for more than 40% of the provincial export value. Khanh Hoa is also one of the six provinces that built large fishing centers to serve the region's fishing area. The estuaries have bays and bays create favorable conditions for fishery development.

In fact, the aquaculture sector not only creates many jobs for workers and significantly increases people's income but also contributes a large proportion to the structure of agriculture in particular and the economy of Khanh Hoa in general.

Potential for development of marine tourism

Regarding to tourism activities, especially sea and island tourism, there is a considerable development. Generally, for the first 9 months of 2019, tourism revenue reached over 20,714.2 billion VND, up 25.32% over the same period last year; Guest accommodation reached to 5,610.82 thousand, of which international visitors account for 2,770.43 thousand people (Khanh Hoa Province, 2019).

Compared with other provinces in the Central – Tay Nguyen region, Khanh Hoa has a diverse natural tourism resource. The coastal strip has 4 large bays: Van Phong, Nha Phu, Nha Trang and Cam Ranh; Nha Trang Bay is recognized as a member of the Club of the most beautiful bays in the world. Khanh Hoa beach has many beautiful beaches, white sand, clear blue sea, no dangerous fishes and underground swirling water. In addition, Khanh Hoa has many tourism resources belonging to rivers, lakes, hot springs, mineral springs (in Ninh Hoa town, Nha Trang city, Dien Khanh district, Cam Ranh city) and special-used forest (Hon Mun Marine Protected Area).

Cam Ranh Bay owns beautiful beaches, white sand, clear blue water, smooth waves, no dangerous fish and underground swirls, so tourism activities in the area are extremely developed.

Khanh Hoa is also a land of quite a rich human civilization tourism system, including many national monuments: Ponagar Tower, A.Yersin scientist souvenir monument, Nha Trang bay, Hon Chong. Besides the famous attractions such as the Oceanographic Institute, Long Son Pagoda, A.Yersin Museum, etc. Khanh Hoa also has a lot of special festivals: Ponagar Tower Festival, Fishing Festival, Bird's Nest Festival, Sea Festival, etc.

The system of local tourism resorts and areas includes: Nha Phu - Hon Lao - Hon Thi lagoon tourism resorts (for sea and island tourism), Doc Let tourism resort (for sea and island tourism) and Hoa Lan ecological tourism area (ecotourism, sea), Ba Ho ecotourism site (ecotourism), etc. Nha Trang city is oriented to develop as an auxiliary tourism center of the entire southern central coastal region.

Regarding tourism products, Khanh Hoa prioritizes the development of sea and island tourism associated with high-class sea and island resort and marine sports, landscape exploration, bay and island visiting; go along with urban tourism and MICE tourism. To support the main tourism products, Khanh Hoa will improve the quality of complementary tourism products such as: marine and island ecology; ship; visiting cultural and historical relics; cuisine; healing, beauty; spiritual festivals, etc.

In 2018, Khanh Hoa welcomed 6.3 million visitors, up 16.7% compared to 2017. In particular, the number of international visitors increased by 37.8%, the revenue increased by 20.7% to 20,524 billion VND. These are really impressive numbers proving the region's growth.

With the above-mentioned potentials, in recent years, the marine economy of Khanh Hoa province has had many significant developments, promoting its leading role in the province's economy, gradually becoming a driving force and enticing other economic sectors in the province to develop together.

6. ADMINISTRATION IMPLICATION

Review, adjust and supplement the planning; completing mechanisms and policies for the period 2020-2025

Based on the socio-economic development situation to 2020, Khanh Hoa needs to formulate and supplement the provincial marine economic development planning and a number of key regions along the direction: based on the system of information and survey data. The planning has participatory of relevant stakeholders; ensure the harmonious settlement of interests of all parties. By 2025, the contents of the master plan and branch planning must basically be developed in accordance with the requirements of socio-economic development in general and marine economy in particular.

The province needs to complete the existing data system on marine economy, and complete the baseline survey about marine economy of the whole Province in the coming years; The planning, appraisal, approval, implementation and supervision of the planning ensure the participation of relevant stakeholders, comply with the sectorial and field planning of the central ministries, and at the same time rely on local practices to develop the plan; Integrating the planning of marine economy development with the planning of sea environmental protection, under which coastal production, business and service activities are only approved when all conditions are suitable with the planning; Planning on expansion of coastal urban areas should take into account the environmental impacts, taking into account the province's sea tourism development; Planning should use sea zoning for purposes of socio-economic development, security and defense; identification of no-exploitation areas, areas of conditional exploitation, areas in need of special protection for security and defense, environmental protection purposes, conservation of ecosystems and artificial islands, equipment and structures at sea .

It is necessary to complete the legal system in a way that is consistent with international practices and national practices in each period as a basis for performing state management in each content of marine economic development (Tran, 2019).

Promoting administrative reform; improving business investment environment, increasing investment attraction; mobilizing to the utmost and using resources effectively for developing investment

Continuing comprehensive implementation the contents of Public Administration Reform Program to create strong changes, effectiveness, efficiency of administration, and the implementation of assigned tasks; Implementing synchronous measures to promote administrative procedure reform, especially administrative procedures related to people and businesses; Completing the survey, deploying and approving the Project on capacity building, renewing the leadership of the Party on rearranging and streamlining the apparatus and mechanism, effective and efficient operation of agencies and units.

Continuing to consolidate and improve the quality of operations of the Center for business development and investment promotion to better support for businesses and investors; Enhancing investment promotion activities, maximizing mobilization and using effectively resources for development investment; Reviewing, updating, adjusting and supplementing the list of projects calling for appropriate investment with the provincial development planning; continuing to innovate in both content and form of investment promotion in the specific direction, in details of each project and each investor; Focusing on attracting investment from big economic corporations at hometown and abroad which have potentials in capital, technology and

experience in order to create pervasive motivation and promote business development in the province.

Strengthening state management in all areas related to marine economy

Currently, the establishment of the management mechanism of the labor force in the sectors has not been clearly defined; the management apparatus contain mainly young staff whose management skills are limited so they do not meet the management needs in the current period. At the district level, most of these officials are both in charge of management and management of marine economy. At the commune level, according to the regulation, there is one full-time officer in charge of the commune; however, there are still some coastal communes that do not have a full-time officer. In the upcoming time, the province also needs to focus on consolidating the management apparatus to ensure quantity, structure and components; improving the quality and management capacity and promoting the role and powers of the management apparatus; promoting autonomy to be able to manage the development of urban areas sustainably.

Combining the organization and state management along the vertical system with the general council to both solve specialized issues and interdisciplinary problems, helping the state management and operation of the marine economy reach the high productivity (Tran, 2019).

Strengthening inspection and supervision to develop the marine economy in a sustainable manner

The province needs to develop an annual monitoring and inspection program in accordance with the requirements and practice of the province's marine economy development; Carry out irregular inspections in some cases; Amend and supplement to legal provisions on the process of inspection and supervision on coordination mechanism to meet practical situation; Establish interdisciplinary inspection teams according to the provisions of law; The conclusions and recommendations of the inspection team must be strictly implemented by the concerned parties, especially the violating party. Test results, the results of settling complaints and denunciations must be publicly announced on the mass media.

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